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ALPHABET OF
NATURAL THEOLOGY.

BY
JAMES HENRIE, M.A.

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ALPHABET
OF
NATURAL THEOLOGY,
FOR
THE USE OF BEGINNERS.

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PLAN OF THE WORK.

As there can be no doubt of the extensive diffusion of Atheism, chiefly in a concealed and insidious form, in works where it ought least to be expected, it was deemed advisable to take up the proofs of the existence of God in a way so brief and at the same time as far as possible so comprehensive and plain, that those who might not like to encounter the larger works of Paley and Crombie, or the Bridgewater Treatises, should be induced to spend a few spare hours in learning something of the subject. Great care has accordingly been taken to condense into a small compass the outlines of interesting discussions which are scattered through many volumes of no little magnitude, and only those who have tried it, can know the difficulty that such a task involves.

Most authors who have written on Natural Theology, confine their line of argument to one main point, and either leave others altogether out of consideration, or pass slightly over them. Dr. Clarke, for example, confines himself wholly to metaphysical reasoning; Dr. Crombie seems somewhat inclined to do the same, though he has briefly dipped into the argument from design in the works of creation, while Dr. Paley confines himself almost entirely to the argument from design, and takes but slight notice of speculative reasonings. On the contrary, it has been the aim of the author of this little volume to give to each of these modes of reasoning its due proportion, and consequently to take up in succession all parts of the subject. That

this aim has not been attained with the same success in all the divisions of the volume, is owing more to the difficult nature of the arguments than any want of care in executing them alike.

The plainness, which has also been aimed at with peculiar care, may not always be found to come down to the level of the reader's intelligence. This, however, as must be evident, is chiefly attributable to the sublimity of the subject, and the imperfection of human language and of human conception.

It is not to be concealed, that great diversity of opinion prevails upon many of the topics here discussed, even among those who are quite agreed in rejecting Atheism. It was, nevertheless, desirable in a rudimental work like this, to avoid, as far as possible, the coming into collision with different religious parties. How far this has been effected it would be impossible at present to anticipate; but one strong proof that it has been so far accomplished appears from the fact, of the greater portion of the discussions being delivered in 1820, in a course of lectures at the Royal Institution, Cork, where religious party spirit runs violently high; and though Churchmen, Catholics, Methodists, and Unitarians, including clergymen of each of these persuasions, were among the auditors, no objection, so far as is known, was made to the statements here reproduced. This fact is, it is conceived, of some importance in guaranteeing the absence of party views, or offensive heterodoxy, in the work.

London, 25th July, 1834.

ALPHABET OF NATURAL THEOLOGY.

THE WORD THEOLOGY.

WE are indebted to the Greeks, as in many other similar instances, for the term **THEOLOGY**¹, meaning literally "God-study;" which, though it seems to sound harsh and singular, would not probably have done so had it been early introduced into our language, and rendered as familiar to the ear as the word "Theology." I shall, therefore, only use it here as a familiar illustration of the term derived from the Greek, having no wish to interfere with established and well-known terms.

The branch of study comprehended under Theology, has two grand divisions, according as it is confined to the doctrines derived from biblical sources, termed

(1) In Greek **Θεος** "that which makes," that is a "maker," meaning "God;" and **λογος** "what is spoken," meaning a "discourse," a "treatise;" and in a secondary sense, "study" or "opinion."

“Revealed” or “Christian” Theology ; or, as it is confined to facts and reasonings derived from examining the works of creation, termed “Natural” Theology. It is the latter only of which it is proposed to treat in this Alphabet.

It may be well to remark, however, that it is not always possible to separate Natural Theology from Christian Theology, in consequence of what Lord Bacon terms “Idols of the Den¹,” or peculiar modes of thinking produced by early education and by particular courses of reading. From these causes many authors, when discussing the subjects of Natural Theology, reason unfairly, inasmuch as they pretend to draw their materials from the works of creation ; whereas they indirectly, and it may be unconsciously, derive certain notions of God from the Bible, and endeavour to make their arguments from natural sources coincide with these notions. In the same way, it is common to see a theorist build up a goodly fabric of fancies, to the support of which he gathers all sorts of facts suited to his purpose, embellishing some, and shearing others of their fair proportions when they will not square with his views.

In writing this little book, I do not pretend that I can free myself from these “Idols of the Den,” among which writers on Natural Theology often get entangled ; but so far as I shall be aware of it myself, I shall, as I go along, point out the distinction to beginners by reference, in all necessary cases, to texts of scripture. This will be the more important, from the fact that those who call themselves *Deists*, and who reject Christian Theology, most commonly borrow the best parts of their

(1) In Latin, *Idola Specus*, which will be explained in an ALPHABET OF LOGIC.

creed from the Bible without acknowledging their debt, like those who having no money of their own live in splendour at the expense of their creditors.

DEISM AND DEISTS.

THE words "Deism" and "Deist" are not, like "Theology," derived from the Greek, but from the Latin¹; and may be rendered more in the Saxon form by "God-ism" and "God-ist;" *Deism* implying a belief in the existence of God and the ascribing of certain attributes or qualities to Him; and *Deist*, an individual who believes in such existence and in such attributes. The deist, as has just been mentioned, professes to derive all his knowledge of God from the observation of nature, and particularly not to depend upon the Bible for any part thereof, at least, not to consider the knowledge he thence obtains as of any higher authority than that obtained from Cicero, Confucius, or Mahomet.

It is no part of my present design to enter into arguments for or against deism; though I do not deem myself restricted by this declaration to avoid any incidental remark on the subject which may arise as I proceed.

The similar terms *Theism* and *Theist* are often used to distinguish a belief and a believer in God, who does not disbelieve the inspiration of the Bible.

(1) The Latin word for "God" is "Deus," derived either from the Greek *Θεός*; or from *Ζεύς*; "Jupiter," which we retain in our own word *Deuse*.

ATHEISM AND ATHEISTS.

As Deism or Theism implies belief in the existence of God, "Atheism" implies a disbelief in that existence. The whole reasoning, consequently, of Natural Theology is directed against Atheism, and the arguments which have been devised for its support; the arguments chiefly of certain philosophical sects, and of individual writers who have, from time to time, appeared during the last two thousand years, and are not wanting in the present age, though the doctrine never has, and happily never can become popular or much diffused, inasmuch as, upon the evidence alone of the history of all nations, it is altogether at variance with human nature.

Individuals, who profess themselves to be atheists, are almost exclusively theoretical philosophers, such as pretend to rise above what they term common prejudices and vulgar belief. Some ignorant persons, hardened in crime, occasionally pretend to disbelieve in the existence of God; but if they ever really do so, which appears doubtful, their disbelief is merely temporary.

(1) From the Greek, *a*, "without," and *Θεός*, "God."

IDEA OF GOD.

It appears to me, that the most simple mode of commencing the study of Natural Theology, is to examine and analyse the idea formed in the mind of the person and the attributes of God; for I am convinced that much that is mystical, objectionable, and absurd, has been written on the subject in consequence of omitting this preliminary and indispensable inquiry, and of indulging in vague and dreaming fancies.

It will probably render the proposed investigation easier for the beginners, to go back to the period of infancy, and trace the mode in which the young mind comes to form an idea of God—on the same principle which I have elsewhere exemplified in tracing the origin in infancy of ideas of space and time¹. We shall in this way be better prepared for the investigation of the proofs for the existence of God.

PERSON OF GOD.

It is one of the strongholds of such atheists as Sextus Empiricus and Hobbes, that it being impossible for man to conceive any idea of God, therefore God does not exist at all; in which inference they evidently follow the erroneous logic of taking a part for the whole; for every one conceives some idea of God, though he may not be able satisfactorily to fill up the whole outline thereof in his mind. By the same sort of logic, Hobbes might have denied the existence of

(1) See ALPHABET OF PHYSICS, pp. 6 and 96.

heat, because he could not see it ; or, of light, because he could not feel it with his fingers. I shall take this atheistical argument then on its own ground, and try to show, that we can, and do conceive an idea of God, even in early childhood or infancy.

Infant Ideas of the Person of God.

When I was at Cork in 1820, I was acquainted with a very religious family, in which it was the frequent practice to sing psalms and hymns with the accompaniment of a piano-forte. A little girl, five or six years old, belonging to this family, one day, with childish simplicity, asked her mother, if God had a piano-forte in heaven. Now, I hold, that this anecdote, unimportant as at first sight it appears to be, furnishes a key to most or all of the ideas about God formed in early life, before the mind is accustomed to speculate or to abstract.

It had been carefully impressed upon the attention of the little girl that God dwells in heaven surrounded by angels and saints who continually sing his praises ; and not being able to form notions much different from those with which she was familiar, she naturally concluded that there ought to be a piano-forte to accompany the singing. It would have been easy to have made her believe from this, that God himself performed the accompaniment ; or to attribute to Him any of the notions she had derived from the persons with whom she was acquainted.

I recollect when I was a child, that as it was considered improper and wicked to use the name of God in a familiar manner, my companions and I were wont to talk of the " Good Man up in the sky ;" and I am very certain, I had no other notion of the Being so

designated, than that of a venerable old man sitting on or above the clouds.

This notion, I have no doubt, was farther confirmed by the appellation "Our Father" at the beginning of the Lord's prayer; it being impossible for a child to form any other notion of a heavenly, than of an earthly, father. We shall immediately see also, that in this respect the most profound philosopher is little more advanced than the simplest infant, inasmuch as he can only form ideas of appearance from what he has himself seen.

Adult Inductions.

Professor Cousin of Paris, well and justly remarks, that "a God who is absolutely incomprehensible by us, is a God who, in regard to us, does not exist; for that which is absolutely incomprehensible, can have no relations which connect it with our intelligence, nor can it be in anywise admitted by us. What, in truth," he adds, "would a God be to us who had not seen fit to give to us some portion of Himself, and so much of intelligence as might enable us to elevate ourselves, feeble as we are, even unto Him,—to comprehend Him,—to believe in Him?" In the same spirit, Sir Isaac Newton says, "we must reason from phenomena to God;" and elsewhere he expressly says, that "all language applied to God, is taken from the affairs of men by some semblance." Bishop Brown, in his excellent work on the *Procedure of the Understanding*, says, "nothing is more evident, than that we have no idea of God as he is in himself; and it is for want of such an idea, that we frame to ourselves the most excellent conception of him we can, by putting together, in one, the greatest perfections we observe in the creation, and

particularly in our own reasonable nature, to stand for his perfections: not most grossly arguing and inferring that God is such a one as ourselves, only infinitely enlarged and improved in all our natural powers and faculties; but concluding that our greatest excellencies are the best, and ablest, and most correspondent representations only of his incomprehensible perfections, which infinitely transcend the most exalted of what are in any created beings, and are far out of the reach of all human imagination."

The infant—the child, as we have just seen, forms an idea of God from what it has seen on earth,—from its own father, or some other man to whom it looks up with awe and respect. When the child grows up to manhood, it can only follow a similar process in forming an idea of God; for even though elevated to the loftiest speculations of philosophy, it is impossible to escape from the trammelled and imperfect conceptions of human nature. I state this boldly, not as a theory, but as a fact which no sophistry can undermine, and no mystical fancies can extinguish, however these may tend to render it dim and indistinct; and I state it the more unequivocally that it is for the most part much misconceived both by atheistical writers and their opponents. It may be well to explain this at length.

According to the preceding views, we cannot, as the human mind is constituted, have any notion whatever of God or the attributes of God which does not one way or other coincide with something observable in ourselves or our fellow men. Every idea or part of an idea,—every notion or part of a notion,—which partakes not of something human,—something earthly,—is altogether incomprehensible by us, and cannot be understood. Since this then is indisputable, there can be no use in high sounding mysterious terms to express what

we must be wholly ignorant of, and cannot by any means be otherwise, for our minds can only understand what is adapted to their nature and nothing more.

Every word and term then which is applied to God is indirectly taken from something belonging to man ; and every idea we have or can form of God is taken from the same source. Let the beginner pause for a moment, and consider what idea is formed when it is said, God sitteth upon the throne of heaven ; and he will, I think, be forced to confess, that the child's idea of some venerable old man sitting above the clouds, is not very greatly different.

BIBLICAL REPRESENTATIONS OF THE PERSON OF GOD.

THE quotations which I shall now give will furnish an additional and irrefragable proof of the positions just stated ; and though I am well aware that the passages ought not and were never meant to be taken literally, (many are expressly said to be "visions" and "in the spirit,") yet will it be found upon trial utterly impossible to translate their confessedly figurative signification into a literal one. The more strongly and plainly indeed any ideas of God are embodied in speech, the more figurative the words must necessarily become ; for no terms even approaching to literality could be rendered intelligible, where analogy is our only guide.

"And they saw," saith Moses, "the God of Israel, and there was under his feet as it were a paved work of sapphire stone, and as it were the body of heaven in his clearness : and upon the nobles of the children of Israel he laid not his hand."—*Exod.* xxiv. 10.

"I beheld," says the prophet Daniel, "the Ancient of Days did sit, whose garment was white as snow, and

the hair of his head like pure wool." This "Ancient of Days" is afterwards called "the Most High."—*Dan.* vii. 9. 22.

"And I turned," saith St. John, "to see the voice that spake with me; and being turned I saw seven golden candlesticks; and in the midst of the seven candlesticks one like unto the Son of Man, clothed with a garment down to the foot, and girt about the paps with a golden girdle. His head and his hairs were white like wool, as white as snow."—*Rev.* i. 12. 14.

Now here we have as clearly as possible the very same idea embodied in words as we have shown to be commonly formed in childhood, even to the minuteness of venerable snow-white hairs; while in this as well as in other passages, the common organs and members are distinctly ascribed to God.

"Thy right hand, O Lord! is become glorious in power;" saith Moses, "with the blast of thy nostrils the waters were gathered together."—*Exod.* xv. 6. 8. "By the blast of God," saith Eliphaz, "they perish, and by the breath of his nostrils are they consumed."—*Job* iv. 9.

In the book of Numbers we find it written, "If there be a prophet among you, I, the Lord, will make myself known unto him in a vision, and will speak to him in a dream. My servant Moses is not so, who is faithful in all mine house: with him will I speak mouth to mouth, even apparently, and not in dark speeches; and the similitude of the Lord shall he behold."—*Numb.* xii. 8.

The hand and the arm of the Lord, I am aware, are often put as metaphors for strength and power; but these terms are also, as in the preceding passages, employed to designate that which in the book of Numbers is called "similitude," as in the following instances:

"And it came to pass," saith the prophet Ezekiel,

"as I sat in my house, and the elders of Judah sat before me, that the hand of the Lord fell there upon me, and he put forth the form of a hand and took me by a lock of mine head, and the Spirit lifted me up between the earth and heaven."—*Ezek.* viii. 1—3.

In the book of Exodus we read, "And the Lord said, it shall come to pass, while my glory passeth by, that I will put thee in a clift of the rock; and will cover thee with my hand while I pass by."—*Exod.* xxxiii. 22.

"Then answered the Lord unto Job out of the whirlwind and said, hast thou an arm like God? or canst thou thunder with a voice like his?"—*Job* xl. 6. 9.

"The Lord," saith the prophet Isaiah, "hath made bare his holy arm in the eyes of all nations."—*Isa.* lii. 10.

"And behold," saith St. John, "a throne was set in heaven, and one sat on the throne." "And I saw in the right hand of him that sat on the throne a book written within and without."—*Rev.* iv. 2. v. 1.

It would be altogether superfluous to multiply similar passages, as these are abundantly sufficient to prove the point in question. I shall only add from the book of Genesis a single corroboratory proof. "And God said, let us make man in our image, after our likeness:" "so God created man in his own image, in the image of God created he him."—*Gen.* i. 26. 27; or as the apostle James has it, "after the similitude of God."—*James* iii. 9.

That these representations and similitudes of God, however, are only for the purpose of adapting them to human comprehension, is proved by the strong and repeated injunctions in the Bible against image worship, from the issuing of the second commandment, "Thou shalt not make unto thee any graven image."—*Exod.* xx. 5, down to the denunciations in the Apocalypse for worshipping "the beast and his image."—*Rev.* xiv. 9. 11.

So far then from concluding that God is literally "the express image of the person" (*Heb.* i. 3) of man, because he is so represented in the Bible, and because this is also conformable with the analysed ideas both of childhood and of manhood, we rather infer the imperfection of human conceptions, which are unable to form ideas of a kind very different from what has been familiarly perceived. It is said "God is a Spirit," (*John* iv. 24); and our Saviour gives us a negative description of this term when he says, "a Spirit hath not flesh and bones, as you see me have," (*Luke* xxiv. 39). The subject of God's spirituality will come to be discussed afterwards; but, in the mean time we must be content with this negative description, and with the similitudes quoted; for the plain reason, already enforced, that we could understand no other.

In a word, I request the beginner to read any part of the Bible, and examine what idea it imparts of God, and he will invariably find, if he allow himself to examine it without prejudice, that every such idea will resolve itself into some previously acquired idea derived from human nature or human actions. This being the incontrovertible fact, I cannot see that any evil can result from stating it, though evil has resulted, as I have shown, from not stating it, and shifting it away by unfair and fallacious expositions.

Pictorial Representations of God.

The deities of mythology, as we shall presently see, were almost uniformly represented in human form; and though Christian artists have rarely ventured upon any representation of the Almighty, when they have done so, they have been compelled to pursue a similar course. It is indeed not uncommon to find instead of a human figure, rays of light proceeding from a centre

termed a *glory*, sometimes with the Hebrew word for God inscribed there, as at the summit of the ladder in a picture of Jacob's dream. In other instances an eye surrounded by a glory is employed, as in one of the masonic symbols. Raphael, however, has ventured farther, and has painted the Almighty as a venerable old man, according to the idea which I have analysed in the preceding pages.

MYTHOLOGICAL REPRESENTATIONS OF GOD.

EXCEPT, I believe, among Jews, Protestant Christians, and Mahometans, image worship has prevailed in all ages and nations of the world. The idea of God as derived from the person of man, has accordingly been the leading principle upon which such images have been formed ; though the idea has undergone in many instances very singular modifications, both in the peculiarity of figure and in the number of deities conceived ; for it seems to be of the very nature of image-worship to multiply its objects.

Egyptian Representations.

In all cases where a belief in a multiplicity of gods has prevailed, one is represented as a chief or sovereign over the others. In ancient Egypt, accordingly, though as in Thebes, for example, Ammon (the Jupiter of the Greeks) appears to have been reckoned the superior deity, in most parts of Egypt this honour was conferred on Osiris, who is represented in human form.

Plutarch, Juvenal, and Tibullus, represent Osiris as the son of Jupiter and Niobe ; but whether this was the doctrine held by the Egyptians themselves is, I think, somewhat doubtful ; for the accounts which are given by the Greeks are so much blended with their

own philosophy as to weaken thereby any dependence on their fidelity and accuracy.

The gods of the Egyptians were so numerous that it would require a volume to enumerate them. They scrupled not indeed, it is said, to worship the lowliest plants and the vilest reptiles ; and yet we have undeniable testimony, both sacred and profane, that they were superior to all other nations in learning. The accounts given us of their religion, however, are very contradictory, perhaps from the difference in opinion of the vulgar and the priests, or in the authors on whose details we are forced to depend ; for authors constantly misunderstand what they meet with out of their own country.

Though, then, we reject the testimony of Lucian and Juvenal, as to the Egyptians worshipping leeks and garlic, we cannot so easily pass over that of Philo, who expressly says they worship dogs and crocodiles. Cicero also mentions the cat and the ibis along with the dog and the crocodile. What kind of worship they paid to these is nowhere told us. Cicero says that while the Romans had frequently violated temples and images, it was never known that a cat or a crocodile had been profaned in Egypt.

It occurs to me that this idolatry with which the Egyptians have been so loudly and so often charged, may have been nothing more than what is at the present day shown by the Hindoos to crocodiles, cows, and other animals ; or perhaps it may even be brought home to ourselves, and the red-breast, the swallow, and the house-cricket, might by a Chinese or a Mexican traveller be mentioned among the gods worshipped in Britain, because it is here very commonly deemed unlucky to molest these animals. Such a mistake as this has, I believe, more than once falsified the accounts

we have received of foreign nations. Missionaries and religious travellers, in particular, are, from the very habits of their mind, peculiarly liable to make such mistakes ; and we ought to receive the accounts which they give us of distant nations with great caution, and with much allowance for their previous habits of thinking and observation. Mr. Hume, in his *Natural History of Religion*, when adverting to the worship of cats in Egypt, says that if none of the kittens were destroyed, a pair of cats would, in fifty years, have overstocked the kingdom ; and infers that only the full-grown cats must have been adored, and that the little sucking gods must have been drowned.

The worship said to have been paid to garlic, and other plants may, perhaps, be referrible to the practice of hieroglyphic writing ; which art being sacred, the vulgar might hence pay reverence to the things thus symbolised—such as leeks, the serpent, and others. From an inscription on a temple of Neitha, it has been said that the knowledge of one God prevailed among the priests, though concealed from the vulgar ; but if so, why was this inscription placed on the front of a temple ? This inscription is translated by Proclus :—" I am whatever is, or has been, or will be, and no mortal has withdrawn my veil—my offspring is the sun." But how can we be sure that the translation given by Proclus is correct ? and if it be correct, how are we to account for the Egyptians paying idolatrous worship to deceased heroes ? Should we credit Mr. Hume, who says, if once men believe one Supreme Being, they can never verge again into the worship of many gods, termed polytheism*. But Mr. Hume must surely have forgotten his knowledge of history in making such an

* From the Greek Πολυς, " many," and Θεοι, " Gods."

assertion ; for every page of the Bible shows how prone the Jews were to fall into polytheism ; and even the wise Solomon, who could not be ignorant of the unity of God, paid divine honours to Moloch, the evil demon of the Ammonites, as Milton says :—

——“ The wisest heart
Of Solomon, he led by fraud to build
His temple right against the temple of God.”

PARADISE LOST.

In later times, we find the Mahometans transferring to their prophet the reverence they had been taught by him to pay to God. This mode of proceeding, indeed, is natural to man, for we uniformly see that more court is paid to the attendants and favourites of princes and great men than to themselves.

Hindoo Representations.

A similar opinion with that which prevailed in ancient Egypt, of a superior God and a multitude of inferior divinities, obtains at this day in India—an opinion, however, not recent, but of great antiquity, as we learn from the erudite, and no less ingenious papers of Sir William Jones. The Hindoos call their chief god Bramah ; but he, or rather it (for Bramah is in the neuter gender), has, like the Jupiter of the ancients, a great number of appellations. Bramah, like the Egyptian Osiris, is represented in a human form, but with the peculiar characteristics of the Hindoo deities.

Greek and Roman Representations.

The mythological deities of the Greeks and Romans are so universally known, that I need do little more than call the attention of the beginner to the human form of their chief divinity, Zeus, or Jupiter, as agreeing with the analysis above given of the idea of God.

Homer and Hesiod, the oldest classical writers, concur with the rest of the authors of Greece and Rome in placing one God at the head of all the rest. Hesiod seems to think that all the gods (according to him 30,000 in number) were coëval with the earth and heavens, Jove having been the only self-active god of all, and from Jove all the others sprung. But though Jove was the chief god, the inferior deities were not subject to his controul, for they were all separated into caballing parties; and when Jove called them to order, it was thought to be an assumption of prerogative which did not belong to him, and an instance of tyranny.

One set of modern authors maintain that this chief deity, Jove, or whatever he is called, was the true supreme God: another party maintain that it is not so. At first view it might be thought absurd, and not a little paradoxical, to say that the polytheist of antiquity held the unity of the deity, yet is easy to maintain it very plausibly, if we permit the prover to take such passages as support him, and leave out all which are against him. Dr. Sykes, in his *Connection of Natural and Revealed Religion*, goes farther, and strenuously maintains that the ancients were no more polytheists than we are, who believe in a host of angels, good and bad. A French author, M. Septchene, says the Greeks represented Jove as truly as God is represented in the Bible; but it is much easier to make such an assertion than to prove it. The strongest proofs are from Orpheus and Horace. Orpheus says that "God is an unoriginated Being;" but the same Orpheus, or whoever wrote the Orphic verses, takes occasion to say the very same thing of the sun, and also of Bacchus; and Origen tells us that this same Orpheus wrote more impious fables of the gods than

Homer himself. Horace says that "Jove alone reigns with an equal sway over gods and men," which one would think to be proof enough that Horace held the unity of God, were it not that in the very next line he adds, that this same Jove was put in great terror by the Titans; and in other parts of the same ode he recognises the divinity of Juno, Apollo, Vulcan, Minerva, Diana, and the rest of the gods which the Romans are known to have acknowledged.

Celsus, in his attack on Christianity, explains distinctly the Greek and Roman notions of the unity of God: he says, "the silly shepherds of Judea were so foolish as to believe in the existence of only one God." The explanation attempted to be given of this by the moderns is expressed in few words by Pope:

Father of all, in every age,
In every clime ador'd,
By saint, by savage, and by sage,
Jehovah, Jove, or Lord.

Universal Prayer.

This evidently puts all true and false religions, and all superstitions, on the same level: it is one of the most sweeping amalgamations of all kinds of opinion which was ever made; and goes to assert the identity of the true God with all and every of the classical fabulous divinities; though we have just seen that a learned Roman rejects the explanation with contempt, and I cannot see how any Christian could possibly acquiesce in it.

If the ancients did not believe in the unity of God, as we have seen they did not, they could not well believe in one sole Creator and Governor of all things, though this also has been asserted. But how, I would ask, could Jupiter create the world, when he himself was the son of Rhea and Saturn; nay, the youngest of

their children ; for, according to Hesiod, Vesta, Ceres, Juno, Pluto, and Neptune, were all older than Jupiter? and, if I mistake not, Saturn himself was fabled to have been brought into existence after the creation. How, then, could he govern all things when he could be thrown into consternation by the invasion of heaven under the Titans, who are said to be sons of that earth supposed to have been created by him? Horace indeed says, "That nothing greater than Jove has been produced, and nothing lives which is like to him or second;" but we learn from the very ode, of which this is a couplet, that Horace was all the while speaking of Jove as the youngest son of Saturn. It is not a little amusing, indeed, to examine the quotations given by modern authors, to prove the classical notions of God to be as good as ours ; for this is the drift of all their arguments. They quote Ovid, for example, who says, that "Father Jove, the ruler of the Gods, armed with the lightning, strikes the earth with terror:" all of which sounds poetical and well ; but the quoters keep out of view the very next line of Ovid, which says of this ruler of the gods, and wielder of the lightning, that he put on the form of a bull, in order to achieve some paltry love intrigue.

It would be unpardonable to omit that the chief god of the ancients is uniformly represented as being subject to the superior power of Destiny or the Fates, as it is expressed in the plural. To be more particular, the Fates are the daughters of Destiny. This is the doctrine taught by Homer, who introduces Jupiter in the *Iliad*, lamenting that he cannot save his beloved Sarpedon from the sword of Menestheus, as he himself was overruled by fate. The same doctrine is taught by every poet and historian of antiquity. The most inconsistent part of it is that Jove is represented to

have himself written these decrees of destiny, which he is thus forced to obey. "The Preserver and Governor of all," says Seneca, in his work on Providence, "wrote the decrees of fate, and follows them."

Theories of Mythology.

Though the preceding brief notices appear to prove, that the representations at least of the chief god of the ancients, as well as of the modern Hindoos, were derived from the human form, it may not be out of place here to notice certain theories, which do not seem, at first sight, to accord with this notion.

The most singular of these theories is that contained in Mr. Bryant's *Ancient Mythology*, and in the work on *Pagan Idolatry*, by his disciple, Mr. Faber. Etymology, or the tracing of words to their original source¹, is the principle upon which this odd system is built, though it is to me unaccountable how men so erudite and able could have been so far misled by a wild fancy, as a few instances will illustrate.

When Mr. Bryant hits upon an idea, he sticks to it most lovingly, till he has rendered it, to every body but himself, altogether absurd and ridiculous. In speaking, for example, of towers or temples, or an ark or a dove, every thing becomes to his fancy successively a tower, a temple, an ark, or a dove. The three Graces, for instance, he thinks were towers, and the Cyclops were also towers. Jonas the prophet, again, John the Baptist, John the apostle, and Simon, were nothing but doves. It is upon this system that Sir William Drummond has proceeded in his celebrated book, the *Œdipus Judaicus*, which goes to conclude that the patriarchs,

(1) See a striking proof of the fallacy of Etymology, ALPHABET of MEDICAL BOTANY, page 1, note.

mentioned in the Bible, never existed at all, but were only the twelve signs of the zodiac. This singular production was most admirably answered in a work, which, on the same principle, proves that the twelve Cæsars never existed, but were the twelve zodiacal signs.

Mr. Bryant's object was to trace idolatry to its source; and this he found, by etymologic proof, to be the ark of Noah. Hence, says he, the origin of the fable of Venus rising from the flood; for Venus could have been nothing more than the ark. The worship of the bird Ibis, in Egypt, also must have arisen from the ark, as the ibis is a water-fowl, and floated as did the ark. This is not all. In the language of Goshen, the ark was called *hip*, whence this bird, by a slight alteration, derived its name of *hipis*, *hibis*, or *ibis*. From this term *hip*, the Greeks derived theirs for a horse¹, and also fabled horses to come from the sea. Nay, we ourselves retain nearly the original word in our term ship: and in the Ethiopic, *hybo* is the term for dew, because the *hip* or ark floated in water. Hence also the adoration paid to the moon, under the name of Diana, the word moon being derived from the term *men*, which is Babylonish for ark, and the crescent has the form of the bottom of the ark.

Hence also the worship which was paid in Egypt to the bull; by the Israelites to their golden calf in the wilderness, and, at this day, in Hindostan, to the cow; because the horns of these animals are crescent-shaped, like the bottom of the ark. This also is the origin of the Mahometan symbol, the crescent. Because the ark floated in the waters, the god Dagon of the Philistines is imaged as a man, with the tail of a fish; hence

(1) ἵππος.

also our own superstitions respecting mermaids. To this source also Mr. Bryant traces the worship paid to the rivers Nile, Ganges, and Indus, as well as all the river gods of Greece and Rome, who were no other than the deluge, or Noah himself and his family. Noah also could be nothing more than Neptune, who governed the sea. The Chaldaic term *arecca*, for the ark, is the origin of our own word ark; and from it Mr. Bryant derives most easily the words *Argo*, *Argos*, *Arcadia*, *Archon*, and *Henricus* or *Henry*.

Noah was by the Chaldeans called Theuth, whence the Greeks derived their Zeus or Jupiter, as also their Theos and Dios; and the Italians and French have their words *Dio* and *Dieu*, as well as the Celtic *Dis*, the terms for God, from the same source; and the old Germans derived hence their God *Tuisto*, from which our word Tuesday originated.

From the word Noah the Greeks took *Naus*, their term for the ship which is the origin of the fable of *Danaus*, or the ship; as of the Latin *navis*, the French *navire*, the Spanish *navio*, and the Italian *navigio*. The successors of Mr. Bryant have carried his system to a much greater length than himself, and expended a great deal of time, in raking through all the trash and rubbish of antiquity, for the purpose of making out such odd conclusions as those of which I have now given a specimen. A piece of greater absurdity than the whole system is scarcely, I believe, paralleled out of Germany; and yet Bryant, on every other subject, was rational enough.

Mr. Faber, one of Bryant's disciples, seems strongly inclined to consider not only our celebrated outlaw, Robin Hood, but, more wonderfully still, the present Isle of Bute, to be identical with the imaginary northern God, Odin or Woden, as well as with the oriental Godama,

the evident origin, as he thinks, of our own term God. Hamlet's cloud, "almost in shape of a camel, backed like a weasel, or very like a whale," is, I think, a good emblem of such fancies.

There have been several other explanations of mythology proposed at different times by the ingenious; but most of them are equally fanciful with this one of Bryant. For example, the Abbé Foucher, in his *Researches*, has discovered that the Supreme God frequently in ancient times descended upon earth and appeared in the likeness of the famous heroes of antiquity, and from these descents, or, as the Hindoos term them, *Avatars*, of the divinity, he thinks all the fables of mythology originated.

M. Le Clerc, again, in his notes on Hesiod, thinks that the proper account of the matter is, that the gods of mythology were all merchants and traders, and all their fabled exploits nothing but mercantile adventures disguised by poetry and fiction.

This, however, is sober sense compared with the theory of the Abbé Bergier, who, rejecting Hardouin's opinion that Hercules was Moses, undertakes to demonstrate that this same Hercules was nothing more than a large causeway to prevent rivers from overflowing their banks, which rivers have been fabled to be serpents, boars, and lions, which he destroyed. In the same spirit, M. Bergier imagines Jupiter to be rain, which impregnated Semele, a fountain, which brought forth Bacchus, a marsh; and Prometheus he fancies to have been—not a man—but a batch of potter's clay; the eagle that preyed on his liver, the fire of a pottery kiln; and Mount Caucasus the hearth, or rather the kiln itself.

The Abbé Pluche, so well known for his *Spectacle de la Nature*, refers all mythology to the worship, in

the first instance, of the heavenly bodies ; and so far I think he is right ; for the sun, the visible giver of life, must naturally be the first object of a savage's adoration ; and history gives this as a fact of frequent occurrence. Yet I would not go so far as the Abbé in referring all mythology to sun and planet worship. The author of the article in the French Encyclopædia frankly says, that no analysis can be given not full of contradictions and inconsistencies ; and perhaps this is the true state of the matter.

Modern Mythology.

According to the ancient mythology, every country, every kingdom, every province, had a god or goddess to preside over their affairs ; nay, every river and every forest had some divinity which either presided there, or made there an occasional residence. Now this fable the ancients as firmly believed as we believe that there is no proof of it whatever. But though nobody now believes this in the enlightened nations of Europe, yet there are still allusions made to it by our poets and orators, and representations made of it by our painters and statuaries. Nobody now believes in the existence of an imaginary goddess called Britannia, whose business it is to watch over the interests and the prosperity of Britain ; nor in the existence of another imaginary divinity called Hibernia, whose peculiar attention is directed to Ireland, and who amuses herself, when not oppressed with employment, in playing on a golden harp. All this is a pretty enough fancy—an elegant, a beautiful fable, which natural theology disclaims and reason revolts from ; yet in defiance of both, painters will paint their Britannias and their Hibernias, and poets and orators will talk of them as real and embodied divinities, and statuaries will make

allegorical groups of them, and the artists of the mint will emblazon them on coins and medallions, thereby perpetuating heathenism after it has everywhere else disappeared.

It is here worthy of remark, that the ancient poets and the ancient painters all believed in the existence of their gods and goddesses, in their muses and nymphs of the fields, woods, and rivers; the Athenians in their Minerva, and the Ephesians in their Diana; and, being in earnest in their belief, they could easily persuade others into the same, from a common and well-known principle of human nature¹. Not so the modern imitator; he neither believes himself in what he pretends to represent as a goddess, nor does he seem to care whether any body believe it or not. Nobody will believe or even listen with patience to a hypocrite when he scarcely takes the trouble to disguise his hypocrisy. Hence it is that nobody gives credit to the existence or the divinity of the modern poet's muse; for he himself does not give credit to it, nor ever demands it of us, but puts on an awkward and sheepish air in his warmest addresses to this imaginary and uninteresting thing, or rather no-thing, which he calls a *muse*. In the classical ages, on the contrary, the poet's invocation to his muse had an interest and a charm, because he was warmly in earnest, and spread around him the contagion of his enthusiasm.

REPRESENTATIONS OF THE ANCIENT PHILOSOPHERS.

ON examining the representations given of the Deity by the philosophical sects of the ancients, we shall find them to be little different, when carefully traced, from

(1) This will be explained in the ALPHABET OF MODERN PHILOSOPHY.

those of Mythology, though they be put forth in a somewhat different manner and under different terms.

Before mentioning any particular opinions of the philosophers, it is of importance to premise that none of them pretended to have invented their systems; for they were not, like modern philosophers, retired and speculative men, but extensive travellers, and industrious collectors of traditionary tenets, as all of them repeatedly acknowledge; and the traveller who brought the newest and best stock of traditions from Egypt and the East, was looked upon as the chief Philosopher. Plato was a travelling merchant in Egypt and Judæa, in the latter of which he expressly says he learned that the origin of man was from the earth; and he also says that his knowledge of the Gods was all from these traditions. This it is necessary to bear in mind, that we may not think the glimmerings of truth, occasionally to be found in the writings of these philosophers, were discovered by their unassisted reason, which, when they trusted to it, frequently led them into puerilities that could scarcely be credited, had we not their own words in proof.

I would also premise that in the writings of the philosophers, the singular nouns *Theos* and *Deus*, which we unthinkingly translate "God," would be more properly translated "Godhead," as for the most part the terms mean all the Gods in a body taken collectively. At Rome *Deus* meant a "Godhead" of 280,000 divinities, according to what Praxileus declared in the senate; in Greece, *Theos*, according to Hesiod, meant 30,000 Gods in one body. Cicero says, for example, "This indeed comes to pass in God out of whom *they* are understood to be happy and eternal¹", making a marked

(1) Hoc idem fieri in Deo ex quo esse beati et æterni, intelligantur.

transition from the singular to the plural. Again he makes Botta say "You think that God" (or rather the Godhead) "does not exist in one substance or remain the same in number."

Numerous similar examples could easily be collected, and form a sufficient answer to those who think, when they meet with the same word in ancient writers as in the Bible, that it must have the same meaning. Seneca, for example, almost uses the same words as St. Paul, when he says "God is near to thee and with thee and within thee¹," but every body knows that Seneca was a Stoic, and believed God to be nothing more than the soul of the world, which even Spinoza and the rest of the atheists come near to assert. "There is only one cause," says Bayle, "the first universal eternal, which exists by necessity, and which ought to be called God²;" but this we soon find is nothing in his opinion but matter—the earth or the universe.

Thales, the chief of the Ionic sect of Philosophers, thought that the universe was *animated* by a universal principle, and that the stars were actually *alive* from the same cause. Pythagoras also, Aristotle, and many others, believed in this planetary animation. Aristotle, indeed, expressly enjoins the worship of the stars, which he calls living animals. Plato, also, on the same principle, repeatedly prescribes the worship of the planets. The Stoics went farther, and asserted that the stars and planets are nourished by the exhalations of our seas and rivers, and that the planetary motions are caused by their searching about for food. This is not so surprising as that Tycho Brahe, Lord Herbert, and other

(1) *Prope est ad te Deus, tecum est, intus est.*

(2) Il y a une cause première universelle éternelle, qui existe nécessairement, et qui doit être appelée Dieu,

moderns, should give into this absurdity. The reasoning of the Stoics in proof of it was this,—the heat of the sun and stars is the same as animal heat, therefore the sun and stars must be animals. They go on to say, that as they inhabit a pure air, they must have fine understandings; they cannot be moved by nature, for in that case they would either fall by their weight or rise by their lightness—therefore their motions are caused and regulated by their own divinity or principle of animation. Galen, the physician, goes so far as to run a comparison between the intellect of the stars and that of philosophers, and gives the preference to that of the stars, because they are not composed of blood, bones, and bile. This notion, indeed, was so prevalent, that the philosophers who opposed it were always deemed impious.

“We believe,” says Balbus, in Cicero, “that God is a living being, and there is nothing in the whole compass of nature more excellent.” From this we would suppose that he was on the fair way to prove the existence of one God, but he immediately adds, that this all-excellent God is the universe, which he also asserts to be a living being. We ought then always to examine farther than a particular passage in our quotations: by stopping short in this way M. Crousaz, in his otherwise excellent account of Pyrrhonism, has fallen into many mistakes.

I could easily enlarge this view of the ancient opinions to any length, but from this specimen, which is not selected, but taken at random, it may be judged how uncertain, how doubtful, and imperfect, all their opinions and reasonings were upon the subject, though they all agree in the main features of the human personality of the Deity.

ATHEISTICAL INFERENCES REFUTED.

ATHEISTICAL writers, such as Dr. Francis, in his Defence of Paine against Bishop Watson, from the incontrovertible facts just stated, namely, that we can form no ideas of God except such as we derive from human nature, infer either that the notion of God is all a dream, or, at best, that God must be similar to a human being in form as well as in attributes.

By precisely the same sort of inference, the memory of man may be proved to be a storehouse, and the judgment of man to be one of his Majesty's justices, and there will be no end to absurdity; for a beautiful woman may thus be stript of her humanity, and be proved to be either all a dream, or at best nothing more than a rose or a lily, or perchance a star; and all Homer's heroes nothing more than so many lions and tigers and strong bulls, according to the figure of speech employed to characterise them.

On such subjects as these, however, atheistical writers take care not to be absurd, and it is only in obscure and difficult matters, such as the one under discussion, that they think they may revel at will in all the luxury of folly, and indulge in creating all the chimeras of learned and sceptical dreaming.

This I conceive is the true state of the blasphemous inference, which asserts, from the fact that we can only think humanly of God, that God is either non-existent, or is altogether human in his person and his attributes. The facts, on the contrary, as I have stated them, do not at all affect the perfections of God; they only show most forcibly the limits of the understanding of man, which cannot travel beyond the boundaries of its own confined sphere.

GOD REPRESENTED AS A SPIRIT.

WE are told by the Evangelist that "God is a spirit"—*John* iv. 24. ; and if we ask what is a spirit, the highest authority informs us that "a spirit hath not flesh and bones"—*Luke* xxix. 39. By thus avoiding any positive qualities, and merely referring to what spirit is not, we are at once put in possession of all that can be known upon the subject ; for, as we shall presently see, the profoundest philosophers have not advanced a jot beyond this.

Meaning of the term Spirit.

According to the ancient philosophers, and to the greater number of modern writers, all things are composed either of what is termed *Matter* or what is termed *Spirit*. I have elsewhere¹ proved this *Matter* to be an imaginary nonentity, that has no more existence than greatness or greenness, apart from any thing great or green. It will not be difficult to prove what is thus termed *Spirit* to have no more existence than the nothing termed matter ; premising, however, that I pointedly disclaim all connexion with the fanciful opinions of Pyrrho, of Bishop Berkeley, or of Hume, who tried to disprove the existence of the material universe.

The proofs of the existence of Spirit are, if possible, still more feeble and visionary than those for the existence of Matter. Spirit is said to have no parts, and of course to be incapable of being divided. It is said to have no length, no breadth, and no thickness, and to have no existence in place ;—it is not, therefore, like

(1) ALPHABET OF PHYSICS, page 11, &c.

Matter, impenetrable. Spirit, then, can have no colour, no form, no smell, no taste ; and it cannot be either hard or soft. That is, it has no this, and no that : and it is a mere negation or denial of every quality of Matter. The only positive property allowed to Spirit is that of thought or thinking.

Now, at the very outset, I may ask the profound philosopher, who squares his brow, and looks wise and solemn when he makes these announcements,—where or how he obtained all this deep and useful knowledge of the nature of Spirit ? He deigns me no answer ; but calls me a sceptic, a materialist, and a heretic, for refusing to bow to his oracular authority. I am therefore left to put up either with his catalogue of nothings, or remain in my former ignorance ; though, after all, I believe my ignorance to be much on a par with his pretended knowledge. From these barefaced assumptions have probably sprung all the errors and absurdities of materialism.

It may be said the assumptions are probable ; but I can most easily show that their contraries are still more probable. It is said, for example, that Spirit exists not in place. Where then, I ask, does it exist ? I cannot conceive of any thing existing, and at the same time existing nowhere ; if the theorist says he can conceive this, I plainly tell him I cannot reason with him, as I can only reason from my own conceptions, and these would lead me unequivocally to affirm, that if Spirit do exist at all, it must exist in place.

I go farther, and maintain, that if Spirit exist in some place, it must fill up a certain portion of that place—small or great is not the point ; but it must fill up the place where it exists. I think there is no resisting this conclusion. But if it fill up the smallest conceivable place, it must have length, breadth, and

thickness; for the ten-thousandth part of a grain of sand has dimensions, and if we divide this into one million parts more, each part will have length, breadth, and thickness, and fill that portion of space in which it exists; and so must what is called *Spirit*. From the same premises, I infer that Spirit may be divided; for if it has length, that length may be reduced to less, that is, it has parts and is divisible.

Let us now examine whether thought and thinking, the assumed essence of Spirit, give it any better right to a station in the universe. I say that this is an assumption, in so far as thinking cannot be proved to belong to any being except man, and even the theorists will not admit man to be spirit any more than they will admit man to be matter. God is said to be a spirit; and angels are said to be spirits. But where is the proof that God, as a spirit, *thinks*, or that angels, as spirits, have thought. All human thinking consists in perceiving, remembering, judging, and feeling; but we dare affirm no such thing of God, nor of angels; neither dare we affirm the contrary.

Yet here do our theorists most daringly assume, that because they think themselves, and because this thinking is assumed to be the essence of Spirit, therefore, God, as a spirit, also thinks. This is certainly going out of their depth into the empty and pathless void. Independent of God, man, and angels, there may be, for aught that can be shown to the contrary, millions of spirits in the universe which think no more than a stone thinks; but the theory is absolute and peremptory that thinking is the essence of spirit.

I have elsewhere proved this sort of *essence* to be a mere phantom¹; and if the arguments be ex-

(1) ALPHABET OF SCIENTIFIC CHEMISTRY, p. 88.

amined, (I hope they are at least intelligible), the *spirit* of the theories will appear equally unreal. For it is to be remarked, that thinking is not said to be spirit, but the *essence* of spirit. It is the old story of the shell and the nut. Thinking is the shell, and spirit is the kernel; but nobody has ever seen or felt this kernel, and can say nothing about it but that they are sure it is in the nut, if it were once broken. I demur to this; for the nut may be empty, and I have as good a right to maintain this, as the theorists have to maintain the contrary: that is, I have no right at all to affirm any thing of this kernel or phantom called spirit, till I have good evidence to support my affirmations.

But while we reject the theoretical thing called spirit, we can affirm, on the highest authority of testimony, that "God is a spirit," and that the soul of man is a spirit; and that these two orders of spirits have attributes peculiar to themselves, in the same way as, upon the evidence of our senses and of reflection, we can affirm that iron is hard and water fluid, while we reject the existence of the phantom called matter.

Doctrines of Materialism and Spiritualism.

The idea which we have of the GREAT BEING who rules heaven and earth, is, so far as we are able to judge, exceedingly imperfect, inadequate, and obscure. The idea which we have of our own souls is, I conceive, as much so; and surely it is not wonderful, since we can so ill describe our own souls—since we find the subject so wrapt in obscurity, that we should be still less able to penetrate the veil which shrouds the God of heaven and earth from the eye of man, and even it is said from the ken of angels.

In speaking of the human soul, we are obliged to use metaphors and figures drawn from material objects.

We talk of *remembering*, that is, "again-membering" or re-joining members; we talk of *recollecting*, that is, "again-gathering-together;" we talk of *judging*, which is evidently taken from the procedure in a court of justice; we talk of *feeling*, which, as every scholar knows, is a word derived from the Saxon term for "skin," still retained in English in the word *fell-monger*, and in the northern phrase "between the *fell* and the flesh."

The word *soul* itself, in all languages, where it can be traced to its origin, signifies either "breath," or "wind," or "air." This is the meaning of the Greek word for spirit¹; this is the meaning of the Latin word for mind²; it is the meaning of every word applied to mind or spirit in the first instance; though, by change in language and continued use, the metaphorical import is lost or partially forgotten.

I shall here take the materialist of Horne Tooke's school on his own ground. I allow most distinctly the fact, that all the language applied to God as well as to the soul is material; but it is uniformly applied metaphorically and by figure, and never directly. This we have already seen in numerous instances of personal representations of God in human form, both biblical and classical; and I may here add one or two similar instances taken from the mental affections of man.

It is said, for example, that "God is *angry* with the wicked," (*Psalms* vii. 11); that "it *grieved* him at his heart," (*Gen.* vi. 6); that "the Lord *loveth* the righteous," (*Psalms* clvi. 8); and that "the *wrath* of God

(1) Πνευμα, from Πνέω "I blow" or "breathe."

(2) Anima, from the Greek ἀνιμος; "the wind."

[is] upon the children of disobedience," (*Eph.* v. 6). I also find it written, "thus saith the Lord of Hosts, the God of Israel—Oh do not this abominable thing that I *hate*—ye provoke me to *wrath*—wherefore my *fury* and mine *anger* was poured forth," (*Jer.* xlv. 2. 8. 6); and numerous similar passages—all clearly metaphorical, taken from the passions of men.

These, however, are as far from proving God to be influenced by anger, grief, love, wrath, hatred, fury, and other human passions; as the passages formerly quoted¹ are from proving that He is fashioned like a man, with a human body and human members.

In the same figurative way, St. Paul speaks of a "spiritual body," (*1 Cor.* xv. 44²), which, taken literally, is inconceivable; but, as a metaphor, is easily understood.

It is well known how greatly Milton failed in trying to reconcile our notions of spirit with our notions of body. In speaking of the attack on Satan by Michael, he says, his sword

————— deep entering shar'd
All his right side: —————
The griding sword, with discontinuous wound,
Pass'd through him; but the ethereal substance clos'd,
Not long divisible; and from the gash
A stream of nectarous humour issuing flow'd
Sanguine, such as celestial spirits may bleed.

PARADISE LOST, VI. 335.

The truth is, that we must use this material language in speaking of God and of the soul, for we can understand no other; and the materialist loses more than he gains by referring to the materiality of these terms in

(1) See page 9, above.

(2) The original is *σῶμα πνευματικόν*.

proof of his doctrine. It is this very materiality of language, indeed, which proves most strongly that God and the soul of man *are* something very different from what he calls matter. In his way of reasoning, I could prove that dew-drops are pearls; that the eyes of a beautiful woman are celestial stars, and her neck a piece of ivory or marble; that summer fields laugh and rejoice; that willows weep for grief; and that the hills "clap their hands" for joy,—because such language is metaphorically used. The same sort of argument which is brought to prove that the soul is a sort of material gas, or vapour, or whatever it may be called, will prove that a weeping willow has eyes and sheds tears. To say that we cannot form a conception of God, or of the soul, which is not material, that is, which cannot be seen or felt, is not to prove that the soul must be material, but to prove that our conception is limited to what is material. 6

RECAPITULATION.

THE examination and analysis which has been given of the idea of God, in childhood, in manhood, among philosophers, poets, painters, statuaries, as well as the representations in the Bible and of the mythologists of all ages and nations—all lead to the following uniform conclusions.

1. That every thing connected with the idea of God is borrowed directly or indirectly from human nature, or from some familiar object on earth.
2. That though atheists thence infer either the non-existence of God, or his possessing exclusively a human form and human attributes, their inference is inadmissible and illogical.
3. That every human conception formed of God

being figurative, and impossible to be otherwise, in the same way as every conception formed of the soul of man is figurative, all our ideas of God are consequently inadequate, imperfect, and obscure; but it would not follow, because we may see the sun through the horizontal misty air shorn of his beams, that therefore neither sunbeams nor the sun itself have any existence. Yet,

4. That these figurative and metaphorical ideas formed of God are no proof whatever of the existence of God: which rests upon other evidence, to be presently adduced; they only prove the similarity of human conceptions, by consequence either of education or of tradition.

Having thus gone, with considerable fullness of detail, into the analysis of the idea of God, the way will be, as I hope, rendered more clear for proving the existence of God, which atheism denies, and which many philosophers, not professedly atheists, do not at all recognise in their theories and systems.

PROOFS OF THE EXISTENCE OF GOD.

ALTHOUGH it is not very probable that any atheist was ever brought to give up or change his opinions by force of argument, yet may arguments against atheism be rendered of much use in confirming the wavering, and still more in leading the minds of younger readers into 'a right train of thinking upon so momentous a subject.

The proofs in question are usually reckoned to be of two kinds. In reasoning, according to the first mode ¹, a cause is assumed as a basis, and the effect is inferred therefrom: as if we should assume that the human soul is destitute of parts and indivisible, inferring from this, that it cannot be destroyed and must consequently be immortal. In reasoning again, according to the second mode ², the inferences are all made from effects to causes, as if we should infer the indestructibility of the soul from the fact of our uniform strong desire thereof—"our longing after immortality," taken in conjunction with the circumstance that means are amply provided for the gratification of all our other desires, which indeed is the only argument, apart from revelation, worthy of the least notice in proof of the soul's immortality.

As I consider the first mode of reasoning little better than a display of metaphysical ingenuity, I shall notice it last, and begin with the second mode, in which, from

(1) In Latin, termed *a priori*. (2) In Latin, termed *a posteriori*.

the fact of design being everywhere apparent in the world, it is inferred that there must be a designer; for, to use the instance of M. Reimar, so finely amplified by Paley, we might as well infer a watch to have been produced without a maker, by mere accident, as infer the world and the things therein to have been the work of chance.

In the study of anatomy, every man proceeds on the maxim that all the parts of the animal body are useful; and when a part, such as the spleen¹, occurs whose use is not apparent, he is not satisfied till he can assign some office thereto which may at least appear plausible. "I remember," says Boyle, "when I asked our famous Harvey what were the things that induced him to think of a circulation of the blood; he answered me, that when he took notice that the valves in the veins of so many parts of the body were so placed that they gave a free passage to the blood towards the heart, but opposed the passage of the venal blood the contrary way; he was invited to imagine that so provident a cause as Nature had not placed so many valves without design; and no design seemed more probable than that, since the blood could not well, because of the interposing valves, be sent by the veins to the limbs, it should be sent through the arteries, and return through the veins, whose valves did not oppose its course that way."

EVIDENT DESIGN THROUGHOUT NATURE.

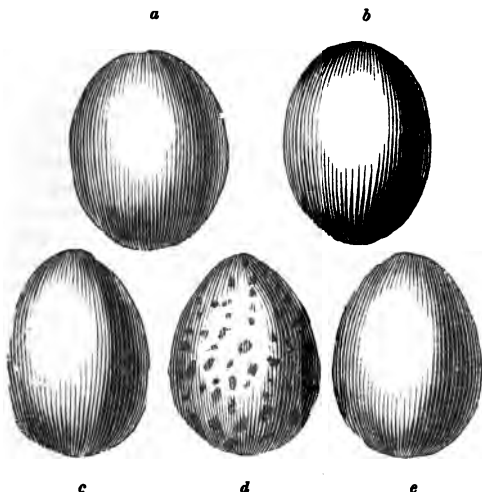
FOR numerous illustrations of the argument from design, I may refer to all the works on Natural History which are uncontaminated with the recent atheistical

(1) See ALPHABET OF ZOOLOGY, p. 171.

principles of Lamarck, unfortunately but too widely diffused. In the works on Insects and on Birds, in the Library of Entertaining Knowledge, as well as in this series of Scientific Alphabets, I have always kept this more or less in view. The beginner, however, may like to see more particularly in what manner the design evident throughout nature is applied to prove the existence of God and his attributes, and I shall therefore introduce here such instances as may appear striking and instructive. In this respect, nothing seems to be better adapted to the scope of this little volume than the structure and hatching of various species of eggs; and with this I shall therefore begin.

*Eggs of the Peacock, the Stork, the Goose, the Eagle,
and the Crocodile.*

It has been well remarked by Dr. Drummond, that if an egg were put into the hands of a person who had never seen nor heard of such a thing, he might be permitted to form thousands of conjectures, but could scarcely by any possibility imagine the glairy colourless white surrounding the orange-yellow yolk to be capable of producing a game-cock, a Guinea fowl, a goose, or a turkey; and much less, I should say, could such a person conjecture five eggs all nearly alike in size, form, and colour, and of similar structure internally, to be capable of producing five such different animals as a peacock, a stork, a goose, an eagle, and a crocodile. Yet this is the fact, as the figures annexed will tend to prove.



Figures of Eggs two-thirds less than the natural size. *a*, egg of the pea-hen; *b*, egg of the white stork; *c*, egg of the goose; *d*, egg of the white-tailed eagle; *e*, egg of the crocodile.

The contents of these five eggs are exactly similar, with the exception of a slight difference in that of the crocodile, but slight indeed compared with the difference of the animals produced therefrom. In looking at the first egg (*a*), "could imagination," to use the words of Dr. Drummond, "ever conjure up, even in the brightest moments of inspired genius, the idea of a peacock springing out of the shell; yet the peacock, in all its glory of dazzling colours, is the product of a little glairy fluid contained in a capsule of chalk, and in nowise different, so far as we can perceive, from what produces a barn-door fowl. Has not the hand of Divi-

nity here written, almost without a metaphor, in letters of gold, the wonders of its creative power? Look at a single feather of the peacock; consider that its shining metallic barbs, its superlatively beautiful eye, and all the wonders it exhibits of iridescent, rich, and changeable hues, according to the angle in which it lies to the light; that its form, its solidity, its flexibility, its strength, its lightness, and all its wonders (for in the eye of intelligence every part of it is a wonder), had their origin in a little mucilage; and then consider whether, in looking on such an object, we should be content with thinking no more about it than simply that it is a peacock's feather. Yet this is too much the practice. Above us, and below; on the right side, and on the left; in every element, in every situation, the works of Almighty Power are present, and all abounding in instruction of the highest kind; and that they make not the impressions they should do upon us is chiefly owing to the extraordinary anomaly, that natural history forms no necessary part of the education of young or old. But if a single feather be so wonderful a production, what are we to think of the entire bird?"

And what are we to think, I may add, of the wonderful difference between two birds, a peacock and a pea-hen, produced from eggs so like that the eye cannot distinguish them? Yet the peacock is furnished with a magnificent and gorgeous tail, while the pea-hen is arrayed in plain and unobtrusive colours.

The second egg (*b*), which is not quite so much bulged out at the larger end, and is rather paler in colour, produces the common stork, a bird very different indeed in form and in colour from the peacock. It is all white except the wings, which are black, and while the peacock's tail when expanded would entirely cover the stork, the latter has a very short tail, but its legs are

twice as long as those of the peacock. The stork also feeds on frogs and garbage, while the peacock lives chiefly on grain, and in a wild state on pepper.

The third egg (*c*), which is rather less taper at the small end than that of the stork, and at the same time whiter, produces the common goose ; while the fourth egg (*d*) produces the common eagle of this country, distinguished when full grown by its white tail. No two birds could differ more than the goose and the eagle in their dispositions and mode of life, even from the very time they are hatched. The young gosling, the moment it is out of the egg, can run about and feed itself with the utmost ease and agility ; while the young eaglet is blind and helpless, and must be fed for many days by its parents. The gosling will plunge fearlessly into the first water it sees, and will swim about as dextrously as its dam, but if an eaglet were put into a pond it would inevitably be drowned. The goose feeds on grass, while the eagle would starve rather than swallow a mouthful of it: Spallanzani could not even by any art compel an eagle to taste bread, though a goose would consider this the greatest dainty it could have. Yet the egg of the goose is very similar in all respects to the egg of the eagle, and their slight difference would not be readily detected except by a naturalist who had paid attention to the subject.

The fifth egg (*e*), which produces a crocodile, though nearly of the same size as the other four, differs from them all in a few particulars, which, however, seem of too small importance, so far as external aspect goes, to indicate the extraordinary difference of the reptile from the birds. "An egg of a crocodile of fourteen feet long," says Count Lacépède, "killed in Upper Egypt in the act of laying, is preserved in the *Cabinet Royale* at Paris. It is whitish and of an oval figure, covered

by a shell similar to that of a pullet's egg, not quite so hard, but the film or membrane lining the shell is thicker and stronger. The long diameter is two inches five lines, and the short diameter one inch eleven lines." There is within the egg a yolk and a white, as in the eggs of birds ; and "if broken into a bowl," says Dr. Drummond, "no eye could perceive the difference."

The young crocodile, like the gosling, takes to the first water it can find ; but, instead of living like the fowl, on plain vegetable diet, it preys upon every living thing which it can master and devour. Though the crocodile's egg also, as we have just seen from Lacépède, is similar in size to that of the goose (some are said by M. Bory de St. Vincent to be twice as large) the crocodile hatched from it often grows five times the length of a man, with a body as thick as that of a horse, and consequently many times the size of any of the birds produced from the other four eggs.

Eggs of the Ring Dove, the Boonk, and the Duck Bill.

The singular differences in the products of the five eggs of similar size, shape, and colour, just described, are more than paralleled in the three others figured below.



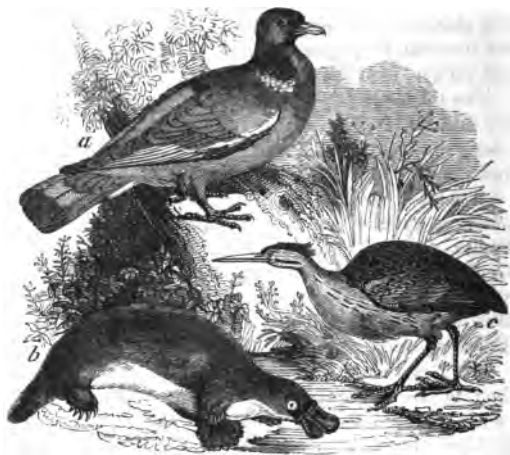
Figures of Eggs two-thirds less than the size of life. *a*, egg of the ring-dove ; *b*, egg of the boonk (*Ardea minuta*) ; *c*, egg of the duck-bill (*Ornithorhynchus paradoxus*).

The ring-dove, cushat, or wood-pigeon, whose egg is figured at (a), is a well-known bird of elegant form, of a fine blue colour, and having a plaintive note of poetical celebrity; but the little bittern or boonk, whose egg (b) is so similar to the ring-dove's, has its neck, bill, and legs long, its colour chiefly a shining green and rusty buff, while its voice is harsh and hollow. The differences are no less remarkable in the young when just hatched—the nestling ring-doves being blind, helpless, and fed by a substance similar to milk, prepared in the crops of their parents, and ejected into their mouths; but the young boonks the moment they escape from the shell, can run about and pick up food the same as a brood of chickens.

The third egg (c) has been but recently discovered; the duck-bill having long been supposed to produce its young alive in some such manner as the kangaroo; and the celebrated German anatomist, J. F. Meckel, even fancied he had discovered, in 1824, the teats by which it gave suck; and M. Blainville claimed some similar notions entertained by him in 1808. M. Geoffroy St. Hilaire, however, on examining the alleged milk glands, decided against the notions of Meckel and Blainville, and his opinions have been confirmed by the discovery of the eggs.

Mr. Holmes, an English collector, who resided some time in New Holland, was one day hunting on the banks of the Hawksburgh river, when he observed a duck-bill run from a sand-bank into the water. On examining the place, he found a hollow in the sand about nine inches in diameter, containing four eggs, which he took to England. Two of these are now in the Manchester Museum, and the other two are or lately were in the possession of Mr. Leadbetter of London. Professor Grant describes the egg as being

equal in diameter at each end, and consequently differing in this from most birds' eggs. The shell, besides, is thin, brittle, slightly transparent, and of a uniform dull white. Dr. Grant and Mr. Yarrel think it is more like a lizard's than a bird's egg, but that it is somewhat different from both. At all events the difference is slight in comparison with the extraordinary difference of the duck-bill, and the ring-dove, or the boonk, whose eggs it so nearly resembles, as may be seen in the figures.



Comparative figures of the animals produced from the three eggs.
a, Ring-dove ; *b*, Duck-bill ; *c*, Boonk.

The Mother Animal does not form her Eggs knowingly.

The inference which I would draw from the facts connected with the formation of eggs, and the subse-

quent evolution of animals within them in the process of hatching is, that the mother animal which produces them exerts no ingenuity or skill thereupon, their growth and progress being wholly carried on without her knowledge, and even without her consent. As very extraordinary skill, however, is displayed in the formation of an egg, it must be referred to some intelligent cause, otherwise we should have not only one but a countless number of effects—one, namely, for every egg—produced without any adequate cause. The beginner may like to see a few details of the mode in which eggs are formed before they are laid, as a proof of the position that the mother bird or reptile knows nothing of their existence, much less exerts any skill in forming them. I shall follow the account I have given of this in the “DOMESTIC HABITS OF BIRDS.”

In birds, the egg may be observed in the egg-organ under the form of a small yellow globe or sphere, frequently smaller than mustard-seed, but gradually increasing in size till it drops from its slender fastening, and falls into the egg-tube. The egg-organ contains all the eggs which are to be laid for several years, each egg differing from the rest in size as well as in composition and colour. The largest of them, which are destined to be first laid, are yellowish, while the rest gradually decrease in size, and are less and less yellow. The increasing weight of the egg, by stretching the slender attaching pedicle, probably attenuates the blood-vessels that supply it with nourishment, so as to greatly weaken and ultimately break it.

Before dropping into the egg-tube, there is no white nor shell, both of which are formed there by the addition of the glutinous substance called the white, and of the calcareous or limy substance constituting the shell. From ill health or accidents, eggs are sometimes

excluded from the egg-tube before the shell has begun to be formed, and in this state they are provincially termed *oon* eggs.

When we examine the egg of a hen in the egg-organ, we perceive numerous blood-vessels branching in a sort of hair-like, very irregular net-work over the whole surface, through the substance of the envelope or membrane which encloses the whole, and which may be called the outer skin or covering, as there is within this another membrane similarly furnished with blood-vessels for supplying nourishment to the *yolk*, and contributing to its enlarged growth. By cutting through both these envelopes with great care, we bring into view a third, of extreme delicacy, very transparent, and of a white colour. This seems to be unconnected with the two envelopes, and no blood-vessels are seen branching through its substance. Immediately within the transparent envelope, which is similar in texture to our own scarf-skin, lies the yolk, as yet imperfectly formed. On the side opposite to that where it was attached to the seed-organ, is placed the germ or rudiment of the future chick, consisting of a white bland substance, which is not separated by any membrane from the yellow matter of the yolk, but merely lies over it, waiting till the heat imparted in the process of hatching shall develope it so that it may feed upon the yolk supplied for its first nourishment.

When the egg falls into the egg-tube, it is covered only by a single membrane, exceedingly thin, and resembling the scarf-skin in its nature; but soon after it falls it exhibits a second covering, a little thicker than the first. This is produced by the irritation arising from the presence of the egg exciting the vessels on the interior of the tube to throw out lymph, which coagulating forms a coating around the egg, similar to

the lymph oozing from a finger-cut thickening, and at length closing up the wound. This coating juts out into small knobs at each end, which terminate in the extremity of the white.

Having been thus furnished with this second membrane, the egg advances farther along the egg-tube, and becomes deeply imbedded in the white that fills the tube. The white being thence formed, the egg makes a still farther advance; and again is furnished from the secreting vessels of the tube with another envelope, constituting the first layer of the membrane of shell which surrounds the white, and attaches itself to the loose extremities of the two knobs. Over this another covering is formed, being the second layer of the membrane of the shell; and by this time the egg has got beyond half the egg-tube. In its passage through the remaining portion it receives the hard covering of the shell, previous to its exclusion.

Now the point which I wish to press upon the beginner's attention here is, that during all this process of the growth and formation of the egg, from its first appearance in the egg organ, when less than a mustard seed, till it is ready to be deposited in the nest, the bird within whose body all this is going forward, is as utterly unconscious of it as she is of the process by which the barley-corns she picks up in the farm-yard are first stored up in her crop, and afterwards triturated and digested in her gizzard. The digested barley, however, is, by an equally wonderful process, converted into blood, part of which actually goes to form the egg; and yet though both the process of converting barley into living blood, and again converting a portion of this blood into the yolk, the white, and the shell of an egg, require a skill in prospective contrivance and management which no human ingenuity can imitate even by approximation, the simple bird is all

the while an unconscious agent, and, except in picking up the barley, a wholly passive agent. Nobody, indeed, can for a moment imagine that she picks up barley with the knowledge that it will produce any of these effects, any more than we ourselves, while eating our dinner, ever do so for the purpose of manufacturing a supply of new blood, but merely and simply because we are hungry or because we may relish the taste of the viands.

But if the bird has no knowledge whatever of the effects which her picking up of barley will produce within her by being digested, formed into blood, and subsequently into an egg, some intelligent agent must either be immediately superintending the whole process, or at least must in the first instance have formed the interior organs of the bird so as to be capable of performing these miraculous changes. To say, on the principles of the theorists of the new school, that the blood in the first instance, and the egg in the second, was formed by the effort of a single bird, and the habit thence transmitted hereditarily, would be to set all known principles of reasoning at defiance. The supposition that the effects in question are the result of accidental collocations of chemical agents would be equally illogical.

It seems, therefore, most fair, and, indeed, so far as I can see, unavoidable, to conclude with Paley, that "upon the whole, after all the schemes and struggles of a reluctant philosophy, the necessary resort is to a Deity. The marks of *design* are too strong to be gotten over. Design must have had a designer. That designer must have been a person. That person is God."

EGGS OF INSECTS.

IN the instances just alluded to, the eggs when deposited are of considerable size, so as to attract the notice of every observer, and render the effects of hatching obvious if not altogether explicable; but in the

case of the eggs of smaller animals, such as insects, the eggs escape observation, and the hatching thereof not being obvious, the opinion has become widely diffused that insects are produced spontaneously, during the putrefaction of animal and vegetable substances, by some sort of mysterious chemistry, and by peculiar states of the air or of the winds termed *blighting* weather. Now were this the fact, were insects or any other animals produceable spontaneously by the chemical process of putrefaction, or by changes in the weather, it would in a great measure, if not entirely, preclude the necessity of any reference to an intelligent designer, much less of an Almighty Creator. But this doctrine, absurd as it appears to be, has in our own times been embraced by scientific men of the highest eminence, such as the late Baron Cuvier, who lived, however, partly to renounce it.

The ancient and not uncommon popular opinion of the generation of insects from putrefaction, which is thrown almost into the form of a recipe by Virgil in his *Georgics*, was amply and experimentally refuted by the Italian naturalist, Redi. In trying to verify an absurd experiment of Kircher for reproducing snakes, he had an abundant brood of the green flesh fly (*Musca Cæsar*). But he was by no means satisfied with the results of his experiments upon the flesh of snakes, for several species besides the green flesh fly were produced, giving some countenance to the opinion of Aristotle, Pliny, Mouffet, and others, that different flesh engenders different flies, inheriting the disposition of the animal they are bred from. He accordingly tried almost every species of flesh, fish and fowl, both raw and cooked, and soon discovered, (as he could not fail to do) that the same maggots and flies were produced indiscriminately in all. This ultimately led him to ascertain that no maggots are ever generated except from eggs laid by the parent flies : for when he

carefully covered up pieces of meat with silk or paper sealed down with wax, no maggots were produced; but the parent flies attracted by the smell of the covered meat, not unfrequently laid their eggs on the outside of the paper or silk, the maggots hatched from these, dying of course from want of nourishment.

The recipe for procuring a swarm of bees from a dead ox, as given by Virgil and Columella, is no less fanciful than that of Aristotle, who imagined young bees to be produced from the purer juices of the Olive tree, and these, as Virgil tells us, were culled by the older bees to recruit their hives. But such an opinion as this was obviously too absurd to become diffused, as the other, equally unfounded, has done respecting *blights* in the air.

This blight has been described as wearing the appearance of a haze, or blue mist, or a sultry, purplish, or orange tinge, in the air, while others promulgate fancies about its containing honey-dew, or being produced by electricity. That these notions are not confined to the vulgar and uneducated, is proved by their being found in works of respectability and talent. In a work, for example, entitled "The Origin and Prospects of Man," by Thomas Hope, the justly celebrated author of "Anastasius," I find the following singular passage, "In those partial collapsions and accumulations called a *blight*, the air itself becomes for miles suddenly filled with myriads of animalcules, unseen before, and *unproduced by parents of the same sort*, which must be out of certain of these elements, first radiant and next gaseous, liquid and solid, collapsing and condensing, suddenly *spontaneously have been formed.*" (Vol. i. p. 189). It is upon this and similar fancies, that this author has built theories about the production of things around us still more fanciful, and revolting to those who contemplate the "Origin and the Prospects of Man," on the rational principles of natural theology.

A no less celebrated and highly estimable writer, the late Dr. Mason Good, says, "That the atmosphere is freighted with myriads of insect eggs that elude our senses, and that such eggs, when they meet with a proper bed, are hatched in a few hours into a perfect form, is clear to any one who has attended to the rapid and wonderful effects of what, in common language, is called a blight in plantations and gardens." "I have seen, as probably many who read this work have also, a hop-ground completely over-run and desolated by the hop green louse, within twelve hours after a honey dew (which is a peculiar haze or mist loaded with poisonous miasm) has slowly swept through the plantation and stimulated the leaves of the hop to the morbid secretion of a saccharine and viscid juice."

I have a very great respect for the extensive erudition and the fine genius of Dr. Good, with whom I had the honour to be on terms of friendship, but on this subject he was widely mistaken. There is not indeed a shadow of evidence or even of probability for the eggs of insects, or animalcules, floating about in the air; because independent of these eggs being greatly heavier than air, the parent insects of every species whose history is known, are very careful not only to deposit their eggs upon or near the appropriate food of the young, but to secure these to the spot with a glue furnished them by Providence for that purpose.

Allowing for a moment that the mother insect does drop her eggs while on the wing, we must also admit, for there is no avoiding it, that these continue to float about, unhatched, from the end of summer, when the mothers die, till the commencement of spring, when the broods make their appearance. Yet when we consider the rains, snows, and winds, to which they must be exposed for six or nine months, I think the hardest theorist would scarcely maintain that a single

egg could out-weather these vicissitudes, and continue to float in the air.

Eggs of Microscopic Animalcules.

The atheistical doctrine of spontaneous generation, so far as it was thought to be supported upon the apparent reproduction, without parents, of microscopic animalcules, seems to have received a death-blow from the recent discoveries of M. Ehrenberg, of Berlin. The late Baron Cuvier, previously a believer in the spontaneous generation of these animalcules, with a candour worthy of his high reputation, avowed that Ehrenberg's "discovery entirely changes received opinions, and demolishes many systems."

All previous microscopic observers had been foiled in their investigations of the interior structure of these minute creatures, by the transparency, and consequently the apparent uniformity of conformation in them; M. Ehrenberg got over this difficulty by colouring with indigo and carmine the water where the animalcules, which he was investigating, lived. The colouring matter was by these means introduced into the bodies of the animalcules, and thus rendered obvious their several organs, previously transparent and uniform in appearance.

By this method not only have the organs of reproduction been discovered in animalcules invisible to the naked eye, but the eggs themselves, as they lie in the egg-organ before laying. So far as M. Ehrenberg has been able to ascertain, each of these animals is, like the snail and the leech, of both sexes; and in some the eggs appear, as in the case of the grey flesh-fly, to be hatched within the body of the parent, and brought forth alive. The annexed figures, from M. Ehrenberg's splendid work, represent the wheel animalcules, showing within the transparent body (fig. 2.) five eggs still unhatched, and two hatched, the young full formed, like the parent animalcules, and ready to be excluded. They

have already the two minute points, red in the living animal, which M. Ehrenberg maintains, and M. Bory St. Vincent denies, to be eyes.

Fig. 1.

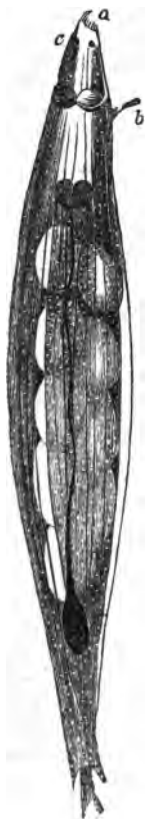


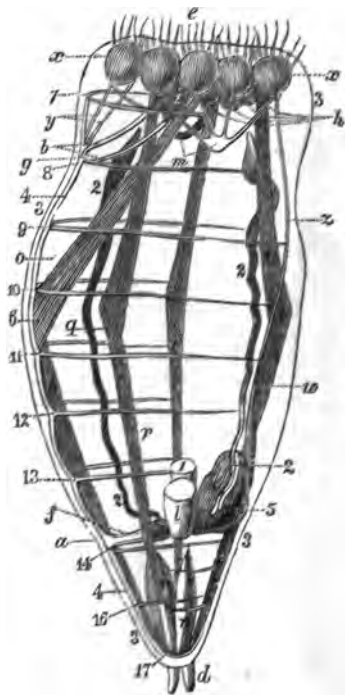
Fig. 2.



Fig. 1.—The common wheel animalcule, (*Vorticella rotatoria*); *a*, the mouth; *b*, the organ of reproduction; *c*, the eyes.

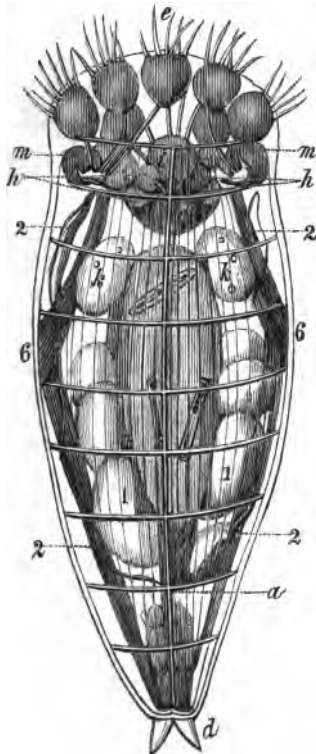
Fig. 2.—The same, with the mouth expanded, showing the young, *a*, *a*, ready to be excluded.

It may be well next to give from M. Ehrenberg figures of another of the wheel animalcules, to show



Structure of the wheel animalcule, *Vorticella senta* of Müller ; *a*, the vent aperture ; *b*, the nervous ring ; *c*, bulging of the gullet ; *d*, the tail ; *e*, the wheel fringes ; *f*, the vent gut through which also the eggs pass ; *g*, ganglion ; *h*, gullet ganglion ; *i*, chief ganglion ; *k*, digestive glands ; *l*, intestine ; *m*, ligament of the wheel organs ; from *n* to *s*, various muscles ; *y*, recurrent nerve ; *z*,

both the general structure of the body, and particularly the comparative magnitude of the egg-organ.



ventral nerves; 1, 1, the egg-organ on each side, consisting of three bodies; 2, male reproductive organs; 2, outer membrane; 3, inner membrane; 7 to 16, cross branches of the heart, or dorsal vessel.

The egg-organ, however, will be seen more distinctly in the following figure, where it is, along with the wheel-organ, detached from the rest of the body.

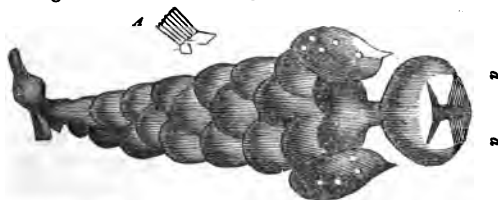


Egg-organ and wheel organs in the same wheel animalcule ; *a*, the wheel organs ; *b*, the egg-organ, containing six eggs, each with a minute body included, supposed to be the embryo young.

The imagination endeavours in vain to follow, independent of the microscope, the exceedingly minute structure of the stomach and intestines, not to mention muscles and nerves, in a creature whose length does not exceed the $\frac{1}{2}$ of an inch ; yet in this and many others Mr. Ehrenberg has discovered jaws and teeth quite distinct, a stomach and intestines, and a dorsal vessel or heart, as is exhibited in several of the preceding figures. That the function of the intestines is the same in these minute creatures as in larger animals, is shown in the figure below, where the indigo with which M. Ehrenberg had tinged the water whereon it lived, is seen thrown out from the vent.

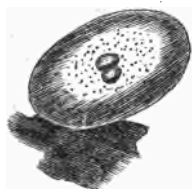


I shall add the following, for the purpose of showing the singular structure of the jaws.



The *Vorticella senta* of Müller, to show the situation of the jaws, *a, a*, one of which is also given detached at *A*.¹

The following is one of the eggs of the same species detached, to show the germ in the centre.



SEEDS OF PLANTS.

NEARLY the same arguments may be drawn from the seeds of plants as from the eggs of animals ; and a beautiful illustration of this is given by our Saviour, in the Gospel, from the seed of the mustard-tree², not our common mustard plant³, " which is the least of all seeds ; but when it is grown, is the greatest among

(1) For further details see ALPHABET OF MICROSCOPIC OBJECTS,

(2) In Latin, *Phytolluca decandra*.

(3) In Latin, *Sinapis nigra*.

herbs and becometh a tree, so that the birds of the air come and lodge in the branches thereof." (Matt. xiii. 31—32.) Looking at an acorn, which is much about the size of a long-pod bean or the tip of one's finger, it would appear almost as miraculous to a native of the Orkney islands¹ or of Spitzbergen, who had never seen a tree, to announce the size of a magnificent oak produced therefrom, as the record of the sun standing still at the command of Joshua. The acorn has a shell like the eggs above examined, and like them also it consists of the embryo of the young tree surrounded with nutriment for it to feed upon, similar to the white and yolk of the egg which is the food of the chick. But who could divine or foretell, previous to experience, that the mealy and apparently uniform whitish kernel of the acorn would produce branches, wood, and leaves, so very different as these are in texture and in composition, leaving form and colour out of our consideration.

The seed of the cabbage palm², though not more than half the size of the acorn, produces a tree even more lofty, but slender withal, and without the wide spreading branches of the oak.



Fig. 1.—The ripe seed with its outer coat taken off. Fig. 2. The same cut across to show the albumen.

(1) A native of Orkney who had never seen a tree at home, when he first observed some on the coast of Fife, asked Mr. P. Neill what sort of *grass* it was.—*Neill's Voyage to Orkney*.

(2) In Latin, *Euterpe oleracea*.

It could certainly never be anticipated from this little seed, which is little larger than a golden pea, that it would produce so tall and elegant a tree. The following figure exhibits the plant in its second leaf, with the seed still attached to the crown of the root :—



Even this, however, gives no indication of the lofty height to which the full-grown tree ultimately rises, of sixty or a hundred feet, as may be seen in the figure.



Seeds floating in the Air.

The notion mentioned above by Dr. Mason Good of the eggs of insects and animalcules floating about in the air, has evidently arisen from a vague analogy drawn from the seeds of plants, many of which do float about in the air; of this the seeds of dandelion¹ are a familiar example. These seeds are extremely light, and after ripening are carried off to a distance by the slightest summer breeze, in order by this providential process to sow the plant for the crop of next season. The mode in which the dandelion-seed that has thus been blown into the air is made to descend to the ground is worthy of examination. It is with this view partly formed on the principle of the parachute² used by aeronauts; "but," to use the words of Dr. Drummond, "easy descent is the great object of the aeronaut, while the seed-down of the dandelion is for the double purpose of a wing and a parachute. Under the influence of the wind, like a wing, it carries the seed off; but when the latter arrives at a place which is calm, the star of down acts exactly like a parachute, and the seed comes to the earth perpendicularly, so as to touch it first with its lower end. This," he adds, "you can at any time examine for yourself; but I would have you to inquire what the object in view is. Why is it that a provision is made for the seed falling to the earth end foremost? Perhaps it gives a better chance of dropping into cracks or fissures, which, as the plant has large roots, may be particularly advantageous to it. When we magnify a seed, we observe

(1) In Latin, *Leontodon Taraxacum*.

(2) French for "Save-fall."

that its upper end has a number of spinous projections especially on its sides, which point obliquely upwards and outwards. Is it probable that these are for preventing the seed-down from dragging the seed out of any fissure in which it may have settled? This may not be improbable; and I find that the slightest force applied laterally will break the pillar off from the seed, but that a greater force is necessary to separate it in the longitudinal direction."

Natural Sowing of Seeds.

The diffusion of the seeds of an extensive class of plants comprehending mosses, funguses, and their congeners, being so universal, and the seeds, or sporules¹, as botanists call them, being so minute as to elude common observation, the phenomena thence arising have, like the sudden appearance of new-hatched insects, given some colour to the doctrine of spontaneous generation. We may see this exemplified every day on brick-walls recently built, even if they be covered with a smooth coat of cement. The first indication of vegetable life on such a wall, particularly in parts exposed to the trickling down of rain-water, is that of a green, silky-looking substance, having somewhat the appearance of a coat of green paint. Mr. Drummond, of the Cork Botanic Garden, by accurately watching the progress of this green matter, which had been unsuccessfully investigated by Priestley, Ingenhouz and Ellis, and had been mistaken by Linnæus for a particular species of moss, ascertained beyond question that it always consisted of the minute buds of common mosses, such as the wall-screw moss and the common hair-hood moss. At Glasgow I have repeatedly remarked, that

(1) In Latin, *Sporulæ*.

on the walls of houses, built with freestone raised from a quarry more than a hundred feet under the surface of the soil, the whole exterior would, in the course of one month, appear as green as if painted, with these innumerable germinating mosses.

The germinating mosses on walls appear to arise from the seeds being carried into the air. This process is facilitated by their extreme minuteness and their comparative lightness, for they do not sink in water like the seeds of flowering plants and the eggs of insects, as appears from their germinating on the surface of stagnant water as frequently as on walls. In low situations, the mode in which the seeds of such plants are diffused is well exemplified in the puff-ball, which when ripe, explodes its sporules in the form of a smoke-like cloud. Mosses again, which grow on trees and walls, if they do not thus explode their sporules, must drop them into the air; and, as they chiefly ripen early in spring, the winds which then prevail will scatter them to considerable distances. But I only state this as a highly probable inference from Drummond's discovery: to detect these all but invisible seeds floating in the atmosphere, and trace them in their passage from the parent plant to the wall or tree where they begin to germinate, I think is hardly possible.

If the doctrine be sound, that every plant arises from seed, we must either believe that innumerable mosses are wafted to the walls through the air, or adopt the hypothesis that they existed for centuries in the interior of the rocks of the quarry.

A still more minute sort of plants, and consequently more difficult to trace, is well known by the popular name of mould or mouldiness. This M. Adolphe Brongniart justly remarks, is, in one of its groups, nearly

allied to the puff-balls, whose mode of diffusing their seeds I have just described. When mould is examined by the microscope, it is seen to resemble these; and sometimes various fungi are, when mature, filled with a blackish dust, supposed to be the seed. M. Micheli, of Florence, an eminent botanist, resolved to try whether this supposed seed would grow if sown on vegetable substances, and found that it did so. On his experiments being repeated at Bologna, however, it was discovered that the mould grew equally well where none of the black powder had been sown; but Spallanzani, by more accurate attention, confirmed the conclusion of Micheli. He collected a great quantity of the dust, and, taking a number of pieces of moistened bread, apples, pears, gourds, &c., sowed some thickly, others sparingly, and others not at all. The result was, that on the unsown substances, the mould did appear, but several days later, and then greatly less in quantity, than on the sown substances; while of the two, the pieces thickly sown had more than double the quantity of the pieces thinly sown, though, when it came up thick, it did not grow so tall.

I was much struck, in the autumn of 1829, upon cutting an apple asunder, to find in the seed-cells a copious growth of the mould with the slender stems and globular heads figured by Spallanzani. Mould upon an apple is not, indeed, wonderful; but the one in question was not only large, but apparently sound throughout. Whence, then, came the seeds of this mould in the very core of the apple? Whatever might have been their origin, I tried, with the seed gathered from this apple-mould, similar experiments to those of Spallanzani, with results precisely similar to his; and being, in this way, able at pleasure to produce mould of the *same species*, by sowing, I think

I am entitled to conclude, that all mould arises from seed, otherwise we must ascribe the same effect to dissimilar causes, which is contrary to the first principles of sound philosophy ¹.

Origin of Vegetable Soil.

Reverting to the green coating on the newly built houses, we are led to a subject of peculiarly striking interest as illustrative of design in the works of creation, I mean, the origin of vegetable soil. As the soil in which the first created plants might grow, is prone to be exhausted of its nutritive principles or carried off by rains and rivers, a very beautiful provision has been made for its renewal, which I shall now explain. It may be presumed that my readers know how sand, and clay, and gravel, are formed by frosts and rain and dew acting on the surface of rocks, and crumbling them down by comminution. Mere sand, however, or clay, or gravel, or any combination of these, will not well support vegetation without the addition of what is called loam, which is a composition of decayed vegetable and animal matter, such as gives to a garden ground its black colour, and constitutes, by its abundance, the richness of a soil. Now, how is this loam produced? I should be accused, perhaps, of favouring the Huttonian vision of an eternal succession of worlds, were I to state unconditionally, that in order to support vegetation, there must be a previous supply of decayed plants in the form of loam; and I may naturally be asked, how the first plants were supported before loam had been formed. Those who forget that God always acts by instruments and means, would, at

(1) See this more fully illustrated, INSECT TRANSFORMATIONS, page 32.

once, answer, that the first plants were directly nourished by heaven; but this seems to be not less irreligious than it is unphilosophical. There can be no fancy in the following account, for any one, who will observe, may see the process going on every day.

Every body has seen the top of a brick, or of a stone wall, green with moss, and sometimes tufts of grass, and other plants, growing there. Now, whence was soil formed on the wall? It was not there when it was built, and appears not to have been carried thither. Whence, then, has it come? We can scarcely go to the very origin of it—we cannot trace the process to the first step—we cannot get beyond the first visible and tangible manifestation of it. When we go farther than this, we land in the abstruse question of equivocal generation, and in all the fancy of conjecture. The first indication of vegetable life on the top of the wall, is that of the green silky-looking substance, having somewhat the appearance of a coat of green paint, already mentioned. As there is almost no support for these germinating mosses, minute though they be, they never advance further than the bud, and die with the first dry weather which occurs, leaving their remains to rot, and form the first particles of loam or vegetable soil. As soon as a thin layer of this soil is thus formed, a crop of lichens make their appearance, and go through the same process of growth and decay; and, if other circumstances are favourable, the soil soon accumulates to a sufficient depth for grass and such plants as can grow in little earth. In process of time, the grass also dies, and the soil being thence increased, the wall flower, snap dragon, and red valerian succeed. On old ruins, we may even see trees growing on soil, which has been thus accumulated in a succession of years, and particularly trees that have winged seeds, such as the ash.

Since it would be an endless task, as I have already remarked, to go over the whole of creation and enumerate in detail the marks of design everywhere abounding, the preceding must suffice as a specimen of the kind of arguments drawn from this source as proofs of the existence of God. For others I must refer the beginner to the works of Ray, Reimar, Nieuwentyt, Derham, Paley, Crombie, Sharon Turner, and the more recent Bridgewater Treatises; and leaving this field, I shall proceed to consider, as briefly as consistent with perspicuity, the speculative arguments.

SPECULATIVE PROOFS AND DISCUSSIONS.

WHISTON, reporting a conversation which he had with Dr. Samuel Clarke on the subject of his celebrated work on the Being and Attributes of God, says, "I was in my garden, against St. Peter's College, Cambridge, where I then lived. Now I perceived, that in these sermons, he had dealt a great deal in abstract and metaphysical reading. I therefore asked him how he ventured into such subtleties, which I never meddle with; and showing him a nettle, or some contemptible weed in my garden, I told him that weed contained better arguments for the being and attributes of God than all his metaphysics. Clarke confessed it to be so; but alleged for himself that since such philosophers as Hobbes and Spinoza had made use of those kinds of subtleties *against*, he thought it proper to show, that the like way of reasoning might be made better use of *on the side of* religion; which reason or excuse I allowed to be not inconsiderable."

The motive then, it would appear, which led Dr. Clarke to adopt speculative reasoning in his book, was to overthrow the subtle arguments of such atheists as

Hobbes and Spinoza ; but after long and very careful examination, I am sorry to say, that so far as I am able to judge, he has signally failed in his object, though he is himself so confident of his ground as to affirm that it is as impossible for God not to exist as for two and two not to be four. "This is a species of evidence," Dr. Crombie most justly remarks, "which the subject neither requires nor admits, the existence of the Deity resting on a surer basis." But let us look at a specimen of Dr. Clarke's reasoning which proceeds upon the first mode of argumentation¹ formerly mentioned.

Dr. Samuel Clarke's Arguments.

Dr. Clarke proceeds in the following manner :—

As there is at present something existing,—namely, the world and the things around us,—we must either say that it existed from all eternity, or has been caused by something that did so exist. The eternal something—that is, the something thus alleged to have existed from all eternity—must have been independent and unconnected with any thing besides itself ; as we could not well suppose a number of beings uncaused and independent succeeding one another in a series. The eternal something then,—the being which has existed from all eternity—must be self-existent, that is, it must be the cause of its own existence, or, to give it in the usual terms of such writers, it must be a "*necessary* being ;"—though I may just stop to remark that this word "*necessary*" serves little other purpose in books on Natural Theology and on Morals, than as a stumbling-block to plain and honest inquirers, and as one of the numerous masks of mystery put on by speculative theorists of ALL parties.

(1) In Latin, *a priori*.

"If we consider," says Dr. Clarke, "the endless progression as one series of dependent beings, it is plain, first, that it has no cause of its existence" from without, "because the series contains within itself every thing that ever was ; and secondly, that it has no cause of existence within itself, because not one individual of this series is self-existent or *necessary*. And where no part is *necessary*, the whole cannot be *necessary*. Therefore it is without any cause of existence."

Again he says, "According to the supposition of an infinite succession of dependent beings, there is nothing in the universe *necessary* or self-existing. And if so, it was originally equally possible, that from eternity nothing should have existed. Then what determined the existence or rather the no-existence of the universe?—Nothing ; which is absurd."

Dr. Clarke goes on in a similar way, to prove the infinity and the omnipresence of God by a number of arguments far beyond common understandings to comprehend.

Objections to Dr. Clarke's Arguments.

Many will think it heresy or fool-hardiness in me, yet I am not afraid to take the consequences of maintaining, that all truth and all sound philosophy is plain. I am indeed most clearly and unequivocally of opinion that it is only falsehood and spurious philosophy that deals in mystical language, and what is called *profoundness*, which, for the most part, means nothing but ignorance : at the best, it can only mean uselessness ; for what is the use of a profound book or a profound argument which cannot be understood.

When men, accordingly, such as Leibnitz, of no less

(1) In Latin, *ab extra*.

talent than Dr. Clarke, find his arguments incomprehensible, I cannot see that they can serve any good purpose, at least to ordinary readers. He calls his book "A Demonstration of the Existence and Attributes of God," but I venture to say it never made any body believe in the existence of God, who doubted of it before reading this profound volume. To such as already believe this, it can be of no more use than a book would be which proves the existence of man, or the existence of light, for which no proof is wanted. What, then, I would ask, is the use of such a book, when even philosophers of the highest name in the same line of inquiry, confess that they cannot fathom its profundity? The question is acknowledged by all to be, in many parts of it, beyond our comprehension; but that surely is no reason why Dr. Clarke or any other man, should write a book on it, which is equally incomprehensible. If he could not understand it, would it not have been better,—would it not have been more philosophical and more manly, to confess his ignorance at once, than to argue and reason in words without knowledge, pretending to be wise above what is written, but in truth only showing that his deep wisdom is exactly the same with other people's ignorance; as more than one half of what goes by the name of profound philosophy is. I have heard that some other author, whose name I forget, wrote what is called a mathematical demonstration of the existence of God, which must, I conceive, be quite a unique specimen of reasoning.

A modification has been given of Dr. Clarke's reasoning, which is certainly much simpler; but it depends for its truth altogether on the trick and the technicality of Aristotle's logic, about the distinction of propositions into affirmative and negative, and into general and

particular, which, so far as I know, never assisted any body to get through with a difficult argument, or to strike out any original views in art or science, though it might assist grammarians and commentators to *define*, and refine, till they forgot what they were *defining*.

All such speculations, and books containing such speculations, may obtain for their authors the fame of ingenuity and profundity; but the question is, what are they good for? to what use can they be applied? They may serve, indeed, to puzzle young readers, and old readers too, and to frighten them from inquiring at all when they find they can make so little of these books. They may also serve to exercise the ingenuity of the idle, in making out what the authors meant; but this appears to be the whole amount of their utility.

What would one think of a machine constructed with a complicated set of wheels, and other mechanical contrivances, but which was good for nothing except showing the ingenuity of the maker? This, we conceive, is a fit example of such books as Clarke's *Demonstration*, which ought to be kept carefully out of the way of young people, otherwise it may give them a lasting distaste for every book which has theology on the title-page. I think his labour is exactly of a piece with what a similar argument would be, to prove the present state of the world. Take the world, as created, a mere globe of earth and rocks, without plants or animals, and deduce from the nature of these rocks and earth, that plants and animals must be produced from them, and we have an excellent argument of this kind. It is this very argument, indeed, which the Epicureans, Dr. Darwin and M. Lamarck, with their numerous living followers, used, to prove that animals were first produced in the sea by mysterious chemistry.

And I imagine whenever men begin to argue in this way, taking the cause as their starting point, and without trying this cause, or without any evidence from experience, inferring that such a cause must, *in the nature of things*, produce such an effect, I imagine they must in every case lay their account with a complete failure. It would require us to have all the wisdom and fore-knowledge of God, to succeed in such an attempt. Every argument, then, it appears to me, which takes the cause for a starting point, must be established, in the first instance, from the effects, otherwise we can have no dependence on its accuracy. Dr. Clarke himself, with all his precision, has fallen into this deception in more instances than one: for example, in proving the moral attributes of the Deity.

“When,” says the Rev. Dr. Crombie, “we express our conviction, that this species of reasoning is not only perplexing and unsatisfactory, but also inapplicable and inconclusive, we deliver an opinion, not hastily nor inconsiderately formed. Viewed in the most favourable light, it is too abstruse to be generally intelligible, and is certainly more calculated to confound than to convince.”

“With all his powers of argument,” says Sir James Mackintosh, “it must be owned, that he [Dr. Clarke] is compelled sometimes tacitly to assume what the laws of reasoning required him to prove; and that, on the whole, his failure may be regarded as a proof that such a mode of argument is beyond the faculties of man.”

Professor Cousin's Arguments.

M. Cousin, of Paris, was once a pupil of the German school of mysticism, founded by Kant, and modified by Fichte and Schelling; but he has for some time

partially abandoned his masters, and promulgated novel doctrines of his own.

He places ideas above every thing, and ideas are not the reflection of things, but things are the reflection of ideas,—the modes of the existence of eternal intelligence; for God, the substance of ideas, is essentially intelligent and essentially intelligible.

Now, Reason, in whatever direction it develops itself, and to whatever it may apply itself, and whatever it may consider, can conceive nothing but under the condition of two ideas, which preside over the exercise of its activity, namely, the idea of one and of many, of unity and variety, of the finite and the infinite, of being and of appearing, of substance and phenomenon, of absolute cause and secondary causes, of the absolute and the relative, of the necessary and the contingent, of immensity and of space, of eternity and of time, and the like.

The result of all this is, that these two terms, with the relation of generation which draws the second from the first, and consequently refers the second constantly to the first, are the three integral elements of reason. Besides, take away the relation which intimately binds variety to unity, and that connexion between the two terms which a proposition requires, will be destroyed. We may then, he alleges, regard it as incontestable that these three terms are not only distinct, but inseparable, and that they constitute, at once and necessarily, a triplicity and a unity, which three-fold and united elements—the three ideas—thus appear to be the very source of reason.

He further maintains, that the same which forms the foundation of our reason, forms the foundation of eternal reason; and that is a triplicity which resolves itself into unity, and a unity which develops itself into

triplicity. The unity of this triplicity, alone, is real ; and, at the same time, this unity would utterly perish, if limited to either of the three elements which are necessary to its existence ; they have all the same logical value, and constitute one indecomposable unity. This unity is the Divine intelligence itself. "Up to this height," adds M. Cousin, "does our intelligence upon the wings of ideas—to speak with Plato—elevate itself. Here is that three holy God, whom the family of man recognises and adores, and before whom the venerable author of the *Système du Monde* bowed and uncovered his head whenever he was named.

"I will go further ; and I will reply from the height of Christian orthodoxy to the reproach implied by the charge of pusillanimous mysticism. The theory which I have just stated is the very foundation of the Christian religion. The God of Christians is both three-fold and one, and the charges which are brought against the doctrine I teach, must extend even to the Christian Trinity. The dogma of the Trinity is the revelation of the Divine Essence, illuminated in its whole depth, and brought within the scope of thought. It does not seem that Christianity regards the Divine Essence as inaccessible, or interdicted to human intelligence ; for it gives to the humblest mind instruction concerning it ; it is the first truth which it teaches us in our childhood."—"God is : He is with all that constitutes his true existence : He is with three elements of intellectual existence."

It will be obvious from this, that the doctrine of a Trinity, if not the Trinity, is inseparable from the system of M. Cousin. His notion of the creative power of God is, that it must be exerted and cannot be restrained. "God," he says, "creates : he creates in virtue of his creative power, and he draws the universe

not from nonentity, but from himself, who is absolute existence. His distinguishing characteristic being an absolute creative force, which cannot but pass into activity, it follows, not that creation is possible, but that it is necessary."

Objections to M. Cousin's Views.

Very strong objections to the latter part of these views have been made by a clever periodical writer, Mr. Carlyle, I believe. The subjection of the Deity to a necessity, he argues, a necessity of self-manifestation, identical with the creation of the universe, is contradictory of the fundamental attributes of a divine nature. In this view, God is not distinct from the world; the creature is a modification of the Creator. Now, without objecting that the simple subordination of the Deity to necessity, is in itself tantamount to his dethronement, let us see to what consequences this necessity, on the hypothesis of our author, inevitably leads. On this hypothesis one of two alternatives must be admitted. God, as necessarily determined to pass from absolute essence to relative manifestation, is determined to pass either from the better to the worse, or from the worse to the better. A third possibility, that both states are equal, as contradictory in itself, and as contradicted by our author, it is not necessary to consider.

It is no answer to these difficulties for M. Cousin to say, that the Deity, though a cause which cannot but choose but create, is not, however, exhausted in the act; and though passing with all the elements of his being into the universe, that he remains entire in his essence, and with all the superiority of the cause over the effect. The dilemma is unavoidable: either the Deity is independent of the universe for his being or his perfection,

on which alternative our author must abandon his theory of God and the creation, or the Deity is dependent on his manifestation in the universe for his existence, or his perfection ; on which alternative his doctrine is assailed by the difficulties previously stated.

M. Cousin, however, does not overlook such objections, but anticipates them fully, though the objector seems unaware of the circumstance. " I hope," says the Professor, " that I shall not be charged with confounding together the world and that Eternal Wisdom which, prior to the world and to humanity, exists with that triple existence which is inherent in its nature."

I am by no means sure that I have represented M. Cousin's doctrine with all the correctness I could wish ; for though I have spared no pains in studying his published writings—as he has not, I believe, given his entire system—I have not, with all my study, been able to comprehend many of his views, and must refer those desirous of studying them to his own works.

SPECULATIVE VIEWS OF ATHEISTS.

THE preceding views of Clarke and Cousin are intended to prove the existence of God ; but as speculative views have also been published by others for the purpose of proving atheistical doctrines, it might be considered a culpable neglect should I omit to notice them in a work of this kind. My limited space, however, forbids me to go into the subject at much length ; and I shall therefore confine the following notices to some of the more noted atheistical views.

Atheistical System of Spinoza.

Baruch Spinoza was a Dutch Jew, who embraced Christianity, but wrote works inconsistent with its principles ; for he maintained that the world is eternal,

and that there is no other God than the universe itself—a system which is usually termed *Pantheism*¹. I shall take advantage of Dr. Crombie's work in what follows.

Not being able to perceive any thing but what is material in the world around him, Spinoza concluded that nothing but what is material can exist, forgetting the sound logical principle, that "experience," to use the words of Hobbes, "concludeth nothing universally." Spinoza accordingly asserted that there is but one substance in the universe, and that this substance, with its attributes, is infinite and self-existent. "By God," says he, "I understand an absolutely infinite being; that is, a constant substance with infinite attributes, every one of which expresses an eternal and infinite essence."

He further represents this infinite substance as the cause of its own existence; for as there can be only one infinite substance, it must be either the universe without Deity, or the Deity without the universe; or, as he admits, both, it follows that the Deity and the universe are one and the same substance. He believes the Deity, or the universe, to be one extended, infinite, and indivisible being; and yet he maintains that bodies and minds are parts of Deity, involving the absurdity, that what is composed of parts is, notwithstanding, indivisible; nor will a subtle distinction, which he offers between the Deity as infinite, and the Deity as unfolded in the nature of the human mind, remove the contradiction. He must believe, in consistency with his doctrine, that the universe is one continuous being; and therefore he is obliged to deny that any vacuity therein is possible. He attributes wisdom to the infinite substance, and yet denies the existence of design

(1) From the Greek, *πας*, "all," and *Θεος*, "God."

in the world ; in other words, he admits the existence of perfect intelligence to contrive, and absurdly denies a purpose, or an end, for any assigned contrivance. He contends, that there can be only one substance, and yet acknowledges the existence of corporeal substances.

“Such,” concludes Dr. Crombie, “are the falsities, the contradictions, and gratuitous assumptions, in the system of Spinoza—a system too abstruse in its principles to be generally understood, and in its consequences too abhorrent to our natural feelings to be generally embraced.” His attempted proof of the existence of God proceeds upon the illogical plan of taking the thing to be proved for granted¹. “God,” he says, “or a constant substance with infinite attributes, every one of which expresses an eternal and infinite essence, necessarily exists. If you deny this, conceive, if possible, that God does not exist : therefore his essence does not involve existence : but this is absurd ; therefore God necessarily exists.”

I shall now take leave of Spinoza, whose system is not much calculated to gain disciples, and take up the views of a recent English author on the subject.

Atheistical Views of Sir William Drummond.

The “Academical Questions” of Mr., afterwards Sir William Drummond, is a work of great acuteness and full of shrewd, well written, but subtle and sophistical, reasoning. When I was at college, I examined his arguments with great care, and learned therefrom, more than from any other book, the important lesson of distrusting plausibilities, however speciously these might be put.

The theist, he says, “takes it for granted, that there

(1) In Latin, *petitio principii*, that is, “begging the question.”

is a principal intellectual mover ;” but “the Newtonian who is an Atheist, will observe, that the supposition of a prime intellectual mover, is not only unnecessary to the system of Newton, but seems even to contradict it. The introduction of a spiritual being as the principle of motion is a mere hypothesis.” Sir William goes on to argue that an immaterial Being, as God is said by Theists to be, cannot act upon the material universe, and sophistically cites the Newtonian law of motion, that action and re-action being equal and contrary¹, to prove that the universe ought to re-act on the immaterial deity, which would be absurd. He does not perceive in all this that he applies this law to a case to which it is altogether inapplicable. He at once gets rid however of the agency of God, by taking for granted, without attempting any proof, that material things have been eternally in motion, inasmuch as motion is an uncreated quality of every thing material ; for “substance supports its attributes² ;” therefore, “substance exists prior to its attributes ;” therefore, “substance is the cause of its own attributes.” Nothing, I conceive could be more inconclusive and absurd than this. We might as well infer, because elasticity is an attribute of a watch-spring, that the watch-spring is the cause of its own elasticity.

Sir William goes on to say that “the third law of motion is certainly understood by us to be always true in the material world, and therefore, we contend, that it is universally true. Nothing can be moved, which is not corporeal. Newton knew no example of motion in bodies where there was no reaction. All bodies have a tendency to move in straight lines ; and if it be supposed, that an immense concourse of atoms endea-

(1) See ALPHABET OF PHYSICS, Page 120. (2) Ibid, p. 12.

voured to move to a common point from all directions, it is evident they would form a globe.

“That which is finite and corporeal can have nothing in common with that which is infinite and immaterial ; and it would be absurd to say, that there is any other substance than matter, which is solid and extended, since matter is always, partly at least, described by these qualities. A substance is undoubtedly that alone, which can perceive, or understand : and since one thing having nothing in common with another, must be in a state opposite to it, it is impossible for us to conceive, how they can be understood, or perceived by each other.

“The immaterial, infinite, eternal substance, has nothing in common with that, which Theophilus calls material, finite, and perishable. How should it be possible, then, that the former should have produced the latter ? There are certain truths by which we must abide ; and upon no account are we excusable, if we knowingly admit contradiction. If then there be a truth, it is that a thing cannot impart that which it has not—if there be a contradiction, it is the reverse of this axiom.” “Things which have nothing in common, can never be the intentional causes of each other.”

“When Theophilus spoke of the existence of three distinct substances, one of which is infinite, and the others finite, he involved himself in a manifest contradiction, since that which is infinite must always include that which is finite.” “There cannot be more than one infinite substance, and there can be no substance which excludes that which is universal. Either, therefore, the Deity is not the infinite substance, or all substantial things are of his essence. But God is infinite ; and consequently his substance is that which is the sole universal and eternal substance.”

I have put down these extraordinary propositions in the very words of Sir William Drummond, that I might not be accused of misrepresenting him. Most of them, however, are so obviously absurd as not to require any antidote to be set before the beginner. But it may be remarked, that even when he has endowed matter with two uncreated forces to put it in motion, that motion would not direct atoms towards a central concourse to form a globe without the direction of intelligence; and again, his assumption that nothing but material substance can exist, is altogether gratuitous.

Atheistical Views of Modern Naturalists.

The notion advocated by Spinoza and Sir William Drummond, as well as by some of the ancient Greek philosophers, respecting the eternity of the world, has been adopted in our own times by many geologists, particularly by those belonging to what is termed the Huttonian school. Like all systematists and theorists, those who adopt the opinions in question, are malignantly virulent when any opponent ventures to dispute their facts and reasonings, more particularly when such discussions tend to undermine or destroy their favourite dogmas. As I cannot comprehend the doctrine of the eternity of the world, I shall not attempt to disprove it by argument; but, before passing on to another class of naturalists, it may be well to tell the reader that the Huttonian geologists do not usually state in so many words that the world had no beginning. This would be too startling a position to be ventured upon broadly and openly. The test by which such insidious opinions may be detected is the maintaining that the earth is in a progressive state of destruction and restruction—the rocks and mountains crumbling down and the shores of the sea wearing away in order

to supply materials for other rocks and mountains and other continents at the bottom of the sea ; and so on for ever, one set of continents and islands disappearing and another set emerging from the bosom of the waters in succession, by the simple and well-known operations of air, heat, and water.

Though all this is evidently an extravagant fancy, notwithstanding the numerous facts which, with great enthusiasm and no little ingenuity, have been brought together for its support, the advocates and the disciples of the doctrine denounce every one who dares to think otherwise than themselves as ignorant bigots, if not something worse ; and instead of fair and manly argument, resort to angry abuse and vilification¹. When will this illiberal and vile spirit cease among those who profess at least to have nothing but truth and fact for their objects of pursuit?

It was a fancy of Darwin's, borrowed from Epicurus, and strongly advocated by Robinet and Lamarck, that animals were produced by some inexplicable chemistry, from a single and simple filament or threadlet of matter, which, by its efforts to procure nourishment, lengthened out parts of its body into arms and other members. When some of these supposed threadlets of matter again had, in process of time, improved themselves into birds, the different forms of their bills were, it is said, in the same way gradually acquired and hereditarily transmitted, as were the long legs of some water fowl, from the endeavours of the birds to elevate their bodies above the water in which they waded.

"Otters," says M. Lamarck, "beavers, water fowl, turtles, and frogs, were not made web-footed in order

(1) See a most illiberal and unfair Review of Fairholme's "SCRIPTURE GEOLOGY," in the Mag. of Nat. History, vol. vi. p. 255.

that they might swim, but their wants having attracted them to the water in search of prey, they stretched out the toes of their feet to strike the water, and move rapidly along its surface. By the repeated stretching of their toes, the skin which united them at the base acquired a habit of extension, until, in the course of time, the broad membranes which now connect their extremities were formed.

“ In like manner the antelope and the gazelle were not endowed with light agile forms, in order that they might escape by flight from carnivorous animals; but having been exposed to the danger of being devoured by lions, tigers, and other beasts of prey, they were compelled to exert themselves in running with great celerity, a habit which, in the course of many generations, gave rise to the peculiar slenderness of their legs, and the agility and elegance of their forms.

“ The camelopard was not gifted with a long flexible neck because it was destined to live in the interior of Africa, where the soil was arid and devoid of herbage; but being reduced by the nature of that country to support itself on the foliage of lofty trees, it contracted a habit of stretching itself up to reach the high boughs, until its fore legs became longer than the hinder, and its neck so elongated, that it could raise its head to the height of twenty feet above the ground.”

I would not have noticed this romancing nonsense, which could not impose upon any person endowed with common sense, though written by a naturalist in other respects of the first-rate abilities, were it not that, like the Huttonian geology, the language of Lamarck, if not his doctrines, has become diffused through the greater number of modern works on natural history. We are told, for instance, by a living English writer,

that rats, rabbits, and the other animals classed with these, "make several attempts, as it were, to attain the structure of the feathered class¹." The same writer says, "nature appears to fluctuate between a manifest reluctance to relinquish the tracts she has left behind, and an anxiety to anticipate those upon which she is about to enter; alternately retracing or advancing her steps, and nearing, with somewhat of an apparently wayward indecision, the different points of each²."

As it would only be wasting the beginner's time to point out in detail the gross absurdity of these and hundreds of similar passages which I could easily quote, it will be more useful, I think, to put the young reader in possession of a test like that already given of insidious Huttonianism, by which he may detect the insidious atheism of Lamarck's disciples. In the former case the basis of the doctrine of destruction and restruction was given; in the present case the terms of the theorists are the chief test.

An animal then may, according to these modern naturalists, be *degraded*, and having some of its organs *imperfect*, it tries to improve these by *development* in its *progress*, or *passage*, or *transition* towards some alleged model called a *type*; or tries to *obliterate* these or render them *abortive* or *rudimental* by diminution. When parts spring up in an animal whose use is not known, these are termed *spurious*, *false*, *adventitious*, and sometimes *appendages*. The *type* is said to be *normal*, and those which have not yet reached the *type*, but are *leading round the circle* thereto, or deviating from it, are said to be *aberrant*, that is, wandering from the *type*. The words printed in Italics are a specimen of the terms used by these highly objectionable writers,

(1) Zool. Journ. iv. 416.

(2) Ibid. li. 66.

who also talk similar nonsense about *affinities*, *analogies*, *representations*, *replacements*, and particularly about the tissue of contradictions, which they call the *Natural System*¹. When any of these terms are met with, the reader can have no doubt about the writer's belonging to the atheistical school of Lamarck.

Atheistical Views of the Mystic Naturalists of Germany.

The mystic speculations, which are exclusively termed philosophy in Germany as well as in Sweden and Denmark, are not, as has been hitherto common, confined to metaphysical books, but are foisted into works simply descriptive of plants and animals, and in this way become more widely diffused than they could otherwise have been. The following is a specimen of what professor Fries, of Lund, gives as the principles upon which he arranges natural productions.

"Nature," says Fries, "is a universal complication of phenomena, existing and acting in all places and at all times; an infinite power made manifest by the successive evolutions of a finite power; the sum of the whole creation in a continuous state—all existent matters proceeding from perfection and pregnant with futurity.

"In nature there is a perpetual struggle, an uninterrupted rotation. The powers of formation and destruction operate alternately, whence nature is always dead and regenerate. The human mind, viewing this last phenomenon in its most extensive and, at the same time, most satisfactory sense, calls eternity in a state of ceaseless variation by the name of *Nature*.

(1) See ALPHABET OF BOTANY, Page 153 and 181, Third Edition, and Montagu's Ornith. Dict. Introd. Second Edition.

"The powers and the productions of nature are co-existent.

"All power is as it were a law under which a given production holds its existence, but in such a manner that all power is the finite revelation of an infinite law. To act and exist is the same thing.

"Power therefore is nature without production; production is matter without power. Neither exists in nature by itself."

Another specimen of similar stuff occurs in a work on East Indian Beetles, by Max. Perty, published at Munich in 1833. "The world," says Perty, "was formed by antithesis, and is preserved by antagonism.

"As to the genesis of celestial bodies, the theory of aggregation is of greater moment than Vulcanism and Neptunism.

"Whatever are the mechanical powers in organic nature, the same are the organic powers in the animal and vegetable kingdom. Whatever are the organic powers in organic nature, the same are the psychical (spiritual?) powers in the human race; throughout nature, there is a perpetual analogy, the same powers being only different, not by quality but by evolution.

"Explain to me the growth (indoles) of the lowliest grass, and I will explain to you the phantasy and agitation of the human mind.

"The psychical condition of animals is certainly and exclusively derived from their organisation.

"Oxygen and photogen are the universal vivifactive powers.

"The exact limits between the beginnings of each organic kingdom are not to be found."

As I have no pretensions to understand these transcendental flights of fancy, I cannot be expected to enter on any discussion of their merits; but I con-

ceive that it would have been wrong to omit all notice of them, when they are making their way into our elementary books, and threatening to contaminate our science in a similar way as has been done by the disciples of Hutton and Lamarck. I hope and trust their absurdity will be quite palpable without farther remark.

THE UNITY OF GOD.

THE arguments adduced for the existence of an intelligent first cause, the Creator of all things, go far to prove that there is only ONE GOD. It is out of our power, indeed, to conceive how more than one infinite being can exist ; for although we can form no idea of what infinity is, as shall afterwards be more satisfactorily shown, we can believe there is such a thing, and from the fact can argue with success. We can say, were there two intelligences of equal power and wisdom, and with the same purposes, these being all infinite, one would be superfluous ; and if with opposite qualities and designs, the harmony in the universe perceived by every one, and which every new discovery in physics more clearly proves, could not exist.

It is here objected, if there be only one superintending God, whence comes it that there is so much contrariety, imperfection, and evil in the world ? But this, as will be more fully discussed when treating of the attribute of benevolence, is a specious not a sound objection ; for it overlooks the nature of created things, and only has respect to the nature of the Creator, which leads to much confusion and inconsistency. It may be safely asserted, that God could not create any thing that was not limited, or short of the highest per-

fection, and therefore including in itself the possibility of evil, natural and moral. God has worked with perishable materials, and finite beings, therefore the particular nature of every thing besides God, is determinable only by the different possibility of the boundaries fixed to it : and particularly the welfare and happiness of intelligent beings cannot be greater or more durable than their finiteness admits of. Was Deity to be prevented from creating the world, lest evil might come into it? That would have been to abrogate essential good, for fear of accidental evil.

“All who acknowledge one God of infinite perfections,” says Dr. Dwight, “regard the idea of there being more, an absurdity ; and, on the other hand, in the whole history of Polytheism, wherever more gods than one have been believed in, none of them has been considered infinite.” The proof of one God being complete, and no evidence of more, Newton’s rule in philosophy, which assuredly is one of the soundest, applies, namely, never to multiply substances without necessity. If, indeed, there be more Gods than one, it is strange that no trace has been found of their existence ; yet many argue, and it seems correctly, that no individual, by the mere light of reason, ever discovered that there was but one God, There is no account to be found of any such man ; nor of any nation that once lost the knowledge having recovered it. The doctrine of the Unity of Deity, most probably, has been totally derived from revelations, vouchsafed originally to man. It is true, that the unenlightened but contemplative can hardly be supposed to remain unimpressed with a belief of the existence of a first great cause, when beholding the planetary system, for instance ; but it does not appear improbable, that the same studious and inquiring genius, would go a step

farther in speculation, and attribute every phenomenon in nature to a stern, dark, and overruling fate. Plato, no doubt, and other renowned philosophers of antiquity, taught that there was but one God ; but Plato shows in his writings that his best doctrines were borrowed from traditions, preserved by *Barbarians* or *Foreigners*, who, he says, " were more ancient than the Greeks." There is, however, a very wide difference between the discovery of a truth, and the illustration or enforcement of that truth, by purely rational arguments, when once revealed. It is very clear that notions of popular knowledge may admit of the most rigid demonstration, though the principles and facts on which it rests were so far beyond the reach of our natural powers and light as only to be obtained by supernatural means.

THE ATTRIBUTES OF GOD.

THE word "Attribute," as applied to God, means whatever is affirmed or said of God ; and consequently a great part of the preceding pages relates to this very subject ; such, for example, as the discussion on spirituality and on wisdom, or design manifested in the works of creation ; both spirituality and wisdom being attributes of God, very generally acknowledged. But it will be proper to enter more fully into the consideration of the Divine Attributes, the subject forming one of the largest branches of natural Theology. At the outset of the discussion, however, let us first endeavour to guard against certain impressions and thoughts that are apt to gain upon our minds when directed to this profound investigation, owing to the finite nature of our capacities, and the inadequacy of human language to speak of any thing, but by referring every image to sensible objects, or borrowing from the same source. God is to us incomprehensible ; and the man of thought and devotion will always be particularly careful, either when speaking or meditating respecting his Creator, not to allow himself to form even a mental image of him. For such a man knows that God is not visible or material, and can only be spoken of and described by saying what he is not, and never by what he is ; or at other times, though most inadequately, by the use of superlative words raised on such positive terms, as are employed to express the highest excellencies found

among men. God has no equal, and to him, therefore, nothing can be compared. When men think, they comprehend, argue, conclude and demonstrate fully on such themes as the being and attributes of Deity, they deceive themselves. Even the pronoun *He*, as applied to God, can only be excused for want of a better appellation ; and it will ever be uttered by a man of rightly constituted principles, with this conviction fully impressed upon his mind. Let us try the particular term, "Infinite," which is often applied to Deity. It is, indeed, only by such an adjective that we can convey what we intend, either when speaking of his existence or of any of his attributes. It is proper, therefore, that we have an understanding of that which we mean by its use.

THE INFINITY AND ETERNITY OF GOD.

THE word Infinite is not adopted to intimate a particular attribute of Deity, but a quality belonging in common to all his attributes. It deserves, therefore, a distinct consideration. By Infinity, or Infinite, we mean a state of being without bounds or limits ; but have we any idea of a thing without bounds or limits ? If others have, I confess I have not. I can conceive of the heavens, stretching away and away, and I can continue, day after day, to extend the boundaries of the heavens, which I had come to in infancy. But of what is boundless or infinite, I have no conception, no notion. I speak for myself. I cannot speak for others, who must think over it, and examine it for themselves. I have no idea, moreover, of what infinite power, or infinite wisdom, or infinite goodness is, for this very reason, that I have no idea of infinite, or what is without bounds.

In the same way I have no notion of the eternity of God, because I cannot conceive of time that never had a beginning, and never shall have an end. I can think of one day succeeding another day, and one year succeeding another, and one century succeeding another and another, as far and as deep as numbers can be mustered by any arithmetical manipulation ; but all this clearly bears no resemblance, not the slightest affinity, to eternity, to that which had no beginning and never shall have an ending. Nay, the longest lived calculator, even all the men that ever lived, though employed to calculate, and do nothing else, could not do any thing that would bring them one point nearer to the truth or the reality, if the attempt were to tell what eternity was, or what it amounted to. Their utmost calculation would not bear a nearer resemblance to eternity than an hour, or the sixtieth part of a minute does. If we could understand the words, we might say, that eternity means an eternal *now*, rather than any succession of time. That in it there is no past and no future ; and that when we use the words, God's justice is eternal, our meaning does not, in the slightest degree, measure that attribute, if we suppose (which, indeed, is the only thing we are capable of supposing, in reference to the phraseology) that millions of centuries ago, God was the same perfectly upright being that he is now, or will be, millions of ages hence ; or that he will distribute to his intelligent creatures their just rights equally throughout any conceivable number of years. Could we understand the words, we might say, rather, that his eternal justice continually has before it the entire history of every creature, where presence is nearer the idea, than succession.

I would also, when using the word spirituality, have this idea, that it was something infinitely different from

matter. The human mind has laboured to discover what a spirit is ; but all in vain. Man could not get or go beyond matter ; and in his difficulty he sought out the most attenuated material object he knew, which was *spiritus*. This word, when translated, means breath, or vapour. The human mind rested, and was obliged to rest there. But as breath or vapour is not infinitely removed from matter, it does not bear any resemblance to what we understand by God, no more than does a clod of earth. If this language be deemed irreverent, it is not so intended ; but to express my own thoughts on the subject. Besides, it is evidently true, and truth will always bear to be published, though it do interfere with popular errors, or mysticism.

But let the reader take care how he understands me ; I do not say that because I have no idea of infinity, eternity, and spirituality, that God is not infinite, and eternal, and spiritual. On the contrary, I say that God may not only possess these attributes, but thousands more of which we never heard, and of which we can form still less conception. This view, I think, raises our notion of the Divine perfection far beyond what is commonly conceived. It is a view which I do not recollect of having met with, though very probably it has occurred to many before. I do not therefore say, that we are to give up all that is generally said on these points, regarding God ; far from it. I only require the reader to examine his own thoughts, and to understand what he means, when he says God is infinite, or eternal, or spiritual ; that, in fact, he only thereby expresses negations. I have nothing to do with different creeds and opinions ; but I have to do with making the nature of ideas understood ; and with rousing my readers—with compelling them to think

and examine every notion and idea they have or think they have ; for it is supposed by many that they have ideas, when they have only words in the mind ; such as those terms "infinity," "eternity," "spirit," just now considered and examined ; of which there can be no conception formed, except one taken from something quite different ; taken, in fact, from space, time, or matter.

Are we, therefore, under this conviction of our inadequacy to fathom the attributes, the essential and moral character of God, to sit down in despair and banish from our contemplations the source of all greatness, wisdom, and goodness ? By no means ; for as regards our Creator, there is a field for investigation, ample and fertile enough, on which the richest mind may expatiate, with endless profit to itself. Even the simplest and most unlettered, at once detects numberless facts that lead to the loftiest and most instructive conclusions. So that while God, as regards both his being and attributes, is incomprehensible by man, yet these things are capable of being demonstrated to man : for "the invisible things of Him, from the creation of the world, are clearly seen, being understood by the things that are made, even his eternal power and Godhead." It is still true that we can form no direct conception whatever of infinity ; but it is plain, that a belief in the existence of an intelligent and supreme first cause implies that he is self-existent, which necessarily leads to a conviction of his eternity, and indeed of his infinity in respect of every attribute, as much as of his duration. Infinity of duration or eternity cannot be comprehended by us, but in this way it is capable of being metaphysically proved. Moreover, this can be done, it can satisfactorily be made out, that God is not finite

in respect of any one attribute, but surpasses all conceivable perfection, as every one who turns his thoughts to the subject will perceive.

There is no doubt that the power displayed in the act of creating, not only exceeds all finite comprehension, but is plainly so great as to exclude every rational limitation ; and when contemplating such power, no wise man ever attempts or pretends to form any estimate of its extent, but is lost and candidly calls it infinite. For it is impossible for us to suppose that such a power cannot do any thing, and every thing, which does not involve a contradiction.

It is also to be borne in mind, that man is naturally fitted, by the very constitution of his mind, for acquiring certain notions concerning the existence of invisible and superior beings ; concerning their attributes and their influence on human life. Consciousness and feeling give a man a conviction, that there is something within himself of a higher order than the matter of which his body is composed ; something which cannot be seen, because it is not material, and which he calls spirit, the very word used when we would describe what is termed the *essence* of God. Man infers the existence, powers, and character of this unseen something from its effects. He concludes the same thing of the spirits or minds of other men ; and in like manner this very same thing is also concluded of God. The terms infinity, eternity, and spirituality, may be dark, or when we are driven to affix a meaning to them, may be admitted to be unintelligible, but the character of one intelligent being is susceptible of evidence from experience by another intelligent being, between whom certain relations exist ; especially the Intelligence who made man's mind is an object suited to the inquiry of that mind. There may be a moral evidence, accompa-

nied by as strong and firm a conviction of the mind as any mathematical demonstration ever was. No man can feel himself more certain that a part is not equal to the whole, than that he was alive yesterday. Indeed this moral conviction is as much stronger than many founded on scientific demonstration, as a vast excess of evidence can produce.

CLASSIFICATION OF THE ATTRIBUTES OF GOD.

THE Divine attributes are frequently divided into natural and moral ; the former referring to the works of God, and the latter to his character ; and sometimes to his essential or incommunicable attributes, such as his self-existence ; and his communicable attributes, such as benevolence, justice, and truth. It is, however, not to be lost sight of, that every mode of classifying or dividing the divine nature and character, is purely arbitrary, and not here adopted because we have any evidence of such qualities belonging to God in so distinct and separate a form ; but only because it is convenient for our limited capacities thus to take up the subject ; presenting his character in different views, and under various names ; these names denoting only the different modifications and exercises of that nature and character. When in search of the most appropriate words for such ideas, we naturally adopt the language that is currently descriptive of the most noble and estimable qualities of our own minds, as symbols for his attributes. There is another important truth to be steadily observed by us, which indeed leads to a similar conclusion, namely, that any one modification or exercise of mind exhibited by an intelligent or moral agent, goes a great way to illustrate every other display

or view of the character of that agent, as will appear from every step we take in the discussion on the Attributes of God.

THE IMMUTABILITY OF GOD.

THE self-existence and unity of God may very properly be followed up by a consideration of his eternity, which, as before mentioned, seems a necessary and irresistible doctrine from these. If God was the maker of all things, he existed before all things. The universe, in short, must have been derived from him; consequently he himself was underived and without a beginning. That God will never have an end, of necessity naturally follows, as I think, from his never having a beginning. For who or what can annihilate the Creator of all? None of his creatures, surely: and that he will terminate his own existence, seems to involve a contradiction; besides it may safely be asserted to be a moral impossibility for him to do so, who is possessed of all good, and who must continually take supreme delight in his essential perfections.

It is, in a great measure, another term for the same ideas, to say, God is immutable. If he created all things, nothing can be new to him. In short, nothing can be out of, or beyond himself, to cause a change of views, thoughts, or purposes. Creatures are constantly changing in their thoughts, designs, and modes of existence. But what causes those changes is the very opposite of any thing that can be in the Creator. Indeed if he be possessed of all possible perfections, he cannot have more; any change would be to have less, which leads to an absurdity.

The laws of nature, being modes in which God is

pleased to act, furnish striking evidence of his immutability; such as what Newtonians term the attraction of gravitation¹, and those that are observable amongst vegetables and animals—the same causes producing the same effects, and similar causes producing similar effects.

But how feeble and inapplicable does all language appear, when we attempt to illustrate such subjects! The term “duration,” for example, though I cannot find a better, tends to mislead the mind, and make it suppose eternity to be a period of time succeeding period to an inconceivable extent. But the eternal existence of God, though no one can tell what it is, most certainly is nothing like this. Nay, I cannot suppose it to be like the immortality awaiting the soul of man; for with God there can be no past and no future. The Scripture has a name which it most solemnly calls God by, and which most probably points to his essential nature. It denominates him the “*I am*,” the idea apparently being that he is an eternally present existence. Do we understand this? Assuredly not. Man contrives, next he works, and, last of all, he judges of his labours by the effects. We are apt to suppose God proceeds in the same manner; and hence numberless errors and absurdities attend our speculations regarding his knowledge and his doings; even such verbal absurdities as “God’s prescience,” and “God’s predetermination.” Absurdities I call these phrases, not as a critic, but as noting, that we cannot proceed a step in telling what God or his attributes are without palpably erring.

God’s eternity and immutability, though wholly unknown to us, must however be something very dif-

(1) See ALPHABET OF PHYSICS, page 101.

ferent from any thing belonging or compatible with human existence or conduct. I repeat, that though I cannot tell what these attributes are, they must, from the very principles involved in self-existence, agree with that which is the same yesterday, to-day, and for ever; and with one who counts one day as a thousand years, and a thousand years as one day; who is Alpha and also Omega.

THE OMNIPRESENCE AND OMNISCIENCE OF GOD.

God's agency is conspicuous in all places, at all times, and in every thing; and as no agent can act where he is not, God must be every where present, otherwise he must be where he is not; which is absurd. But in what manner he is thus present is not conceivable by us; no more, indeed, than colour is to a person that has been totally blind from his birth; and most certainly not by any species of extension that we can fancy or analyse. Can we tell where or how the soul inhabits the human body? Assuredly not: much less can we comprehend how the Self-Existent and Supreme Being can be every where present. Still it is evident that he is so, as his universal and all-pervading agency proves. In this agency, contrivance and skill to which no limits can be set are also strikingly manifest, which proves the omniscience, or all-knowledge of the Creator. Indeed, omnipresence and omniscience seem to be nearly convertible terms when applied to God. He made all things; then all things must be perfectly known to him. Or put it thus: nothing is possible which he cannot bring to pass; and since whatever he can do, he must know; therefore he must know all possible things.

It is not the reality of these attributes that puzzle us, but as in all the others, and indeed as in every thing concerning God, it is the manner of their existence and operation that entirely baffles our every attempt to fathom. It would, indeed, be a satisfactory argument against the perfections of Deity if finite minds could comprehend them. How vain, then, for even the greatest men that we ever heard of to grope their way in search of what is necessarily beyond their reach, to an unspeakable extent, as may more fully appear from the following specimens :—

“Imagine,” says the profound Pascal—“imagine a mathematical point moving every where with infinite swiftness, which is at the same time in every place at the same moment of time, and every where still and entire and without parts. Imagine this, and you will have some notion of my conception of God’s omnipresence.”

I confess I cannot imagine any such thing like this, nor any one of several things here required to be understood by Pascal. Nay, it is not presumptuous even to say, that the great propounder of the theory himself was using terms which he did not understand. Sir Isaac Newton, who was no less deeply seen in philosophy, was so embarrassed with conceiving the omnipotence of God, as to lay it down, that “God is extended every where in substance and in existence.” This opinion seems to agree with the literal import of several passages in Scripture, which may, if taken in this way, be run up to consequences not a little puzzling and inexplicable. The passages in Scripture to which Sir Isaac Newton and Dr. Isaac Watts refer are the following :—Solomon says of God, that “the heaven of heavens cannot contain him ;” they infer that he must therefore be extended beyond the heaven of heavens.

Again : God is said to be "without bounds or limits ;" these authors draw the same inference, that his substance must be extended every where. Agreeably to this Jeremiah says, that God is not only "at hand, but far off, and that he fills heaven and earth with his presence." The same sentiment is repeated by St. Paul, who tells the Athenians that he "is not far from any one of us ;" and that "*in him* we live, move, and have our being," which seems, as these authors think, to include the idea of extension. The author of the 139th Psalm exclaims, "Whither shall I go from thy Spirit, or flee from thy presence? If I ascend to heaven, thou art there : if I go down to hell, thou art there also." From which it is inferred by Newton and Watts, that God must be so far extended in substance ; for if he exist every where, he must be extended every where—at least we cannot conceive of an everywhere existence without an everywhere extension.

It may, perhaps, be objected, that as God is one he cannot be extended, for what is extended is divisible. But in the same way, it may be said that the universe is not extended, because it is one ; or that the sun, or the moon, or this globe is not extended. The capability of division, besides, does not imply division. Does a mass of lead of 100lbs. weight, cease to be a unit, because it can be made into a multitude of pistol bullets ?

The consequences deducible from this notion of the extension of the Deity, are of a kind that cause our feelings to revolt, and our reason to pause. For if God be extended, as Watts goes on to illustrate, then are all bodies situated in his substance, and contain of that substance a part proportioned to their magnitude. A man, therefore, of huge stature of body will (if this opinion be true) possess more of the presence of God

than a dwarf; of course the giant Goliath must have been a better man than the stripling David. The temple of Solomon, also, must have been more holy, more just, and more good, than the most devout worshipper that ever approached its courts; in so much as it must have contained more of the essential presence of God. Further, if God be extended every where, every substance in which he is present must be intelligent and wise, which, in so far as we can judge or ascertain, is directly contrary to the fact. Again, as Dr. Watts infers, if God be extended, he will also, in one sense, be capable of being measured. For if God exist, at the top of this page of paper, and also at the bottom of it, nothing can be more easy than to make out how many inches of his substance lie between the two extremities. It will also follow that one part of his substance is longer and broader than another; an idea which we would certainly hesitate to admit. It will also follow, that every particle of our bodies, and of all the bodies around us, nay even the bodies of the fallen angels, if bodies they have, or their spirits, if they have not bodies, must be all wise, all just, and all good; that is, every thing which is bad must be good. So far Dr. Watts.

The farther I push the hypothesis, indeed, it appears to me to be the more absurd:—but what is worse, its contrary cannot be conceived, without involving absurdities equally glaring. Must God, then, be omnipresent and not omnipresent at the same time? This is, perhaps, still more absurd than the notion of the extension.

It has been conjectured by Saurin, the well known author of some admirable sermons, that God is only omnipresent in so far as he is all-seeing; that he may be supposed to have a local habitation in the centre of

the universe ; that rays pass off from objects to his eyes, in a manner similar to what takes place with ourselves ; and that every thing throughout the universe appears transparent to him. This, however, appears to me to be an assumption ; and though plausible to our ideas, which are all gathered through material organs, such as cannot be proved : whilst it goes to overturn the omnipresence of God altogether.

I think we may fairly conclude, then, that our minds cannot reason at all upon this obscure subject, without, at every step, landing in absurdity and palpable contradiction. Who does not see the error attending every attempt to illustrate the topic, arising from the ideas we necessarily attach to the terms used. We cannot conceive of extension without reference to matter ; we cannot speak of substance without having extension, and the other qualities of matter, in our view ; things which cannot in the slightest, or most distant manner, bear any resemblance to God or his attributes. The whole discussion, therefore, teaches most strongly to us, the lesson of caution and of humility, in all such inquiries and researches ; or rather the manifest absurdity of measuring immaterial, or inconceivable things, by material, or sensible rules.

THE OMNIPOTENCE OF GOD.

THAT the power of God is not relatively only, but absolutely infinite, is, as holds with some of his other attributes, a clear, incontrovertible, metaphysical inference from his eternity and self-existence. But since our minds cannot comprehend such a truth, though necessarily arrived at, I shall at once proceed to the evidence of effects and of experience in support of

God's omnipotence, which evidence is far greater than our minds can grasp, or the greatest stickler for abundant proof can demand. Indeed, of all the Divine attributes, none strike us so readily, or so forcibly, as that of his power. How gloriously manifested is this power in the work of creation, which may be described as the production of existence where nothing was before. A single glance of the mind towards such a work, convinces us at once that the Creator is omnipotent. Let us but think of the vastness and multitude of the things created !

Dr. Crombie speaks in the following manner on this subject :—" When we consider this sphere, on which we live, its magnitude, its daily rotation, its annual revolution, the rapidity of its course, which rushes onward at the rate of a thousand miles a minute, and reflect how vast must be the power to move this single mass, we are lost in amazement. But what is our earth to the planet Saturn, which is more than a thousand times bigger ? What is it to the sun, nearly a million of times greater ? What is the planetary system itself ? It is nothing when compared to the universe. Nothing to the thousands and thousands of systems, each enlightened by its star or sun, extending through the immensity of space. From the nearest of these stars or suns our distance is not less than thirty-seven billions of miles." How amazing and stupendous must be the power of him who spoke them into being !

Even all this is but a minute portion of what modern astronomy has pointed out to us. By the art of the optician the eye has travelled through immeasurable space, and finds no limit, from which we may conclude, that if creation be not absolutely boundless we must feel, at least, that in respect of us it is infinite.

The peculiar nature of many of God's works impress

our minds with the mightiness of his power. Think of him as the Author of the sun. To a reflecting person, even the creation of the smallest piece of matter, endowed but with vegetable life, is an exhibition of power he cannot but in his wonder call infinite. Think, then, of animal life. But what are all these, when compared to the creation of one human mind, which is capable of thinking, of affection, of communicating bliss to other minds? Above all, which is capable of meditating on the character of his Creator, and of loving him?

I shall only farther observe on this attribute, that it is strikingly displayed in the government of all things, in continuing the existence and properties of all things. This is a sufficient and overwhelming proof, that the same energy which created them continues unaltered and undecaying.

But I apprehend that the subjects which have been considered, will receive an individual and aggregate support and illustration from an examination of God's moral attributes, now to follow.

THE BENEVOLENCE OF GOD.

THE term "Benevolence" is here used in preference to the term "goodness;" for goodness seems to embrace all the particular qualities of a perfect moral character; and yet is apt to lead us to a narrow conception of excellence. Especially when speaking of the goodness of God, many, and probably most of us, are ready to consider him all tenderness and sympathy, without giving much place to his justice and truth, which are no less indispensable to real goodness. The highest exhibitions of goodness must be as distinct from a weeping sentimentalism, as it is opposed to revengeful wrath.

In proof of God's benevolence, many have referred for what they deemed irresistible evidence, to the phenomena of the material universe, and to the general course of providence. If we lay hold on certain prominent or characteristic features in these departments, very important aid, no doubt, may be gained to the doctrine. Health, food, and raiment; friends and converse; the beauty and grandeur of visible objects; agreeable sounds; the uses of language; the interchange of thought and affections; the continual gratification found in employment and activity, are all great, and some of them constant sources of enjoyment. Indeed, so uniform and prevailing are they, that we count them as things belonging to us of course, and weigh not their value. Dr. Paley, in a most interesting manner, has followed up another general argument, observing, that the main design of every contrivance and procedure on the part of God will be found, on examination, benevolent. But it must be confessed, that in these fields we are liable to be perplexed by the vast number, the perpetual complication, and often seeming contradictions that we encounter.

There is another sort of argument on this head, sometimes employed with much success. It is said that God is self-existent, and that he made every intelligent being; that he is therefore independent of all; that he neither can gain nor need any thing, and that he can have no motive to be malevolent; since it is impossible to conceive malevolence to be as desirable a thing in itself as benevolence. This view, when taken in connexion with the manner in which he has formed and endowed our intellects and consciences, irresistibly esteeming a benevolent being, and never one of an opposite character, carries great conviction to my mind. As regards the manner in which our

minds are formed, let us remember how the sight of distress commands compassion, how kindness gathers gratitude, how purity ensures eternal peace ; and how the contrary and malignant affections uniformly disturb and do violence to our souls ; all declaring the character of the artificer of such a mental organisation. Indeed, as virtue gains a footing in society, every one must allow that misery withdraws. It therefore becomes a fair conclusion, that if God be malevolent, he has so formed his intelligent creatures in this world, that they cannot esteem but hate him, which seems to involve contradictions.

Man may safely, I think, be said either to be in state of trial or of reward. We cannot figure to ourselves any other condition for him. If in a state of reward, he is beyond measure more happy and less miserable than is consistent with the character of a malevolent creator ; and if in a state of trial, God has so constituted the world as to make misery the only legitimate consequence of malevolence, and happiness the only natural consequence of benevolence. But I feel there is a difficulty to grapple with here that must be fairly stated, and of such a formidable bearing, that so long as we rely upon the light of reason alone, it seems to bid defiance to a satisfactory solution.

Of the Author of Evil.

It is asked, if there be an intelligent and benevolent creator of all things, how comes evil to exist in the world ? This has been attempted to be explained in three different ways. Some say, God could not prevent men from sinning. To this I answer, the assertion cannot be proved. There may be orders of beings,

among whom sin never entered ; and if he prevented it among such, how do we know it could not be universally prevented ? Others maintain, that God creates, by an immediate agency of his own, the sinful volitions of mankind. Now this is one of the most distressing and frightful conclusions our minds can form, and, until proved, must not be admitted.

The metaphysical nature of moral agency, both in God and his creatures, is a subject as difficult and subtle as any in the whole course of human investigation. But to come to the point : the existence of evil does not establish to my conviction that God is its efficient cause ; though I do not see why he might not with perfect benevolence create such moral beings, as, left to their own free agency, yielded to temptations and sin. Temptations seem necessarily to exist in an abundance of good. The good, for instance, which belongs to others may be coveted ; nor do I see that God, by his moral perfections, is to prevent evil originating in this way.

A third class argue, and as it appears more soundly, that God only permits sin to exist. There certainly is a wide difference between permitting or not hindering, and creating. In the former case, he is supposed to create beings possessed of the full power to originate any moral action, in the latter he created their apostasy. Now it seems as easy to understand that man is an agent, as that God is an agent. If so, where is the necessity for going beyond man for the origin of his actions ? But it may be urged, that a perfectly benevolent Creator cannot fail to act so as to produce the greatest good. Can it be proved, that the greatest possible good will not be found in a system where evil has had an entrance. Not knowing the progress and the end of evil, of the minds that are subject to it, nor

of any one thing, we cannot tell what may produce the greatest good to the intelligent world ; nor how far the sinfulness and punishment of some moral agents may go to the standing and the enjoyment of the great body.

The restless and inquisitive mind still asks why did God suffer such a distressing thing as sin to exist ? It is answered, that it is more than probable, that the present is but a state of trial, and not the whole of man's existence. Now a state of trial supposes a capability of erring, and cannot be without it. Where is there any ground for maintaining that a benevolent God is obliged to prevent it ? If free agents are rewarded for obedience with happiness, as long as they are obedient, perfect goodness can ask or give no more ; and that benevolence may propose such a reward, appears a natural dictate of reason. It appears, therefore, that whilst there is no complete argument against God's being possessed of this attribute, gathered from the existence of evil, there are many direct proofs even here, in behalf of the doctrine urged. For, mark, how many blessings are bestowed on sinful beings ; the highest exercise of benevolence we can imagine. Nay, the best men are those, of all others, that most fully and cordially acknowledge their unworthiness. Infants, it may be objected, suffer beyond their deserts. Here again is an assertion without any proofs. We know not the moral state of a mind with which we can hold no communication. Whilst one thing is manifest, that every child, the instant its moral feelings are understood, proves itself to be sinful.

May not the truth be, that evil is a necessary part of the most benevolent system of dispensation towards moral beings ? As things are constituted, many things we call evils in this life, are absolutely necessary. What causes corruption and death, is, in many cases,

the means or the avenues of life and death. Pain and sickness are often the beacons that guard us from destruction. Good men universally acknowledge that their afflictions are conducive to their welfare. And were we careful to separate the evils caused directly by God from those produced by man, we should be astonished at the smallness of the number chargeable against the former. Man, probably, either originates or increases every evil of this life. The truth appears strikingly to stand thus : that so long as we are confined to the light of nature and reason only, we are in such uncertainty as to the future existence and state of the thinking sentient principle of man, that we cannot come to a full understanding on this matter, neither perhaps, are our minds, as at present constituted, capable of entertaining all the bearings of the truth on this subject :—for, surely, there may be truths we cannot grasp. But still to me it is clear, that whilst no solid argument can be found, even from the existence of evil, by which we can be led to doubt or impugn the benevolence of Deity, there are many and cogent ones that go directly to establish the attribute in a way highly consolatory,—I would add, beautiful ; and when His justice and truth are considered, we shall more fully behold how venerable and awful His goodness becomes.

THE JUSTICE OF GOD.

THIS attribute denotes, as regards God's treatment of his intelligent creatures, exactly that course of procedure which their personal conduct as subjects merits. But it may be well here merely to remark, that he is illustriously just to himself, as proved by a uniform

series of dispensations and works, supremely glorious, excellent, and lovely; such as to deserve, and indeed command, all the admiration and homage of which his creatures are capable. Nor can I see how he could so highly and impressively contribute to the advancement of justice, among his intelligent offspring, as by unfolding this supremely excellent feature of his own character.

Justice ought by no means, in considering what is essential to the constitution of a perfect character, to be thrown into the back ground, and behind benevolence; sinking the venerable, the stern, and the awful, into the tender, the soft, and the winning. If we are in a state of trial, justice will demand punishment in case of transgression, which, were God all beneficence, could not be accounted for when inflicted; for however much God may love to behold the happiness of man, a more imposing exhibition of his character is to love virtue more.

Still, much of what has been said in behalf of God's benevolence, goes in support of his justice; for the only way in which he could be unjust to his moral creatures would be by distributing to them less good than they deserved. But every man knows that such is never the return for his conduct; all virtuous men, nay the best men, are the foremost to declare, that they never suffer as they are conscious of having merited. At the same time, the vicissitudes in human life are so perplexed as often to bewilder our minds, when looking into the ways of God with man. But it is clear that we do not see all the bearings and relations of our present condition. This is also, doubtless, a state of trial; therefore, all that is just in such a state, cannot be by us put into the balance nor decided upon. It has, however, been truly observed, that nations, as

such, exist only on this side of the grave ; and that they are uniformly with propriety and justice treated ; being rewarded or punished in time, though after a wonderful extension of justice, in a manner that teaches the loudest and most affecting lesson, as respects God's righteousness, to future ages and nations.

Probably the most convincing argument for the justice, the entire and faultless righteousness of God, is the human conscience ; for whatever diversity of opinion there may be concerning what is conscience, or whether there belong to man such a thing as conscience is generally represented to be, yet it cannot be controverted that there are certain dictates of the mind, common to all men, and in every condition, which are sufficient to uphold the argument at present in view ; such as, that it is wrong for one man to take and keep masterfully from another, that which never belonged to the taker. This dictate I shall call one of conscience, a thing which is on every such occasion invested with a supreme right of authority, though often, it is to be lamented, without supreme power ; but ever, when bereft of that power, feels sorely wounded. Dr. Chalmers says, " this is an evidence for the righteousness of God, which keeps its ground, amid all disorders and aberrations to which humanity is liable ; and can no more, indeed, be deafened or overborne by these, than the rightful authority of public opinion, by the occasional outbreaks of iniquity and violence which take place in society." Again he says, " There is mystery in every thing connected with the existence and origin of evil, yet even in the fiercest uproar of our stormy passions, conscience, though in her softest whispers, gives to the supremacy of rectitude the voice of an undying testimony." Would humanity have been thus moulded by an unrighteous spirit ?

This argument is closed simply and rapidly by every mind, and this very simplicity, haste, and directness, exhibits its mighty force, and therefore goes powerfully to uphold the excellent character of the Supreme Judge, who so formed the mental constitution. In short, the pleasure attendant on virtuous, and the misery on vicious, affections and deeds, all with one accord proclaim that God hateth iniquity, and loveth righteousness upon one unalterably just principle.

THE TRUTH OF GOD.

TRUTH, as applied to God, embraces veracity and faithfulness ; and he who believes that he is independent, immutable, and benevolent, will necessarily at once conclude that he is true to that which he has ever said, or been. Truth, indeed, is only moral immutability, whilst falsehood is essentially change of character. Nor could any sort of society exist where truth was not a chief bond. It has been fairly supposed, that at least a hundred truths are uttered among men for one falsehood. Nor is it any argument against the end to which I point this statement to say, that in most of these hundred truths there is nothing to be gained by falsehood, or it may be that much is to be lost ; since it is certain that a man's actual veracity is not more advantageous to others, than its reputation is to himself. For this natural connexion and universal establishment the more forcibly proves that God prospers nothing but truth. Would the patron of falsehood have so ordered a world, when he laid its foundations ? Even the vilest classes of men cannot do without truth ; thieves and robbers cannot league together if this binds them not ; it is often the only virtue that is not totally

obliterated in their breasts. Nay, the common liar esteems truth, and the dark and deep perjurer cannot live without it. So precious is this virtue, that its very semblance is studied by those who would foully impose upon their neighbours, knowing as they do, that not a man on earth will otherwise deal with them.

Now, do not such original and universally implanted principles establish that he who made and governs all, things is true and faithful himself. Besides, unless he were so, we could not respect and venerate him. He has, therefore, made creatures, if he be a lover of falsehood, who have altogether misunderstood his character. But that which pleased him more than any thing else must have been himself. The reverse involves a contradiction, and is absurd. He is therefore a God of truth, and cannot, without denying himself and all his ways, vary by the slightest shadow of turning, from his own pure and bright moral character.

It is with this attribute of Deity, as with all the others, a thing of the greatest difficulty for me to do any thing, when endeavouring to illustrate it, that approaches to pleasing myself. The field is so extensive, the facts so abundant, valuable, and powerful, that do all I can, by selecting and condensing, a thousand and a thousand matters appear, after all, every where around that seem more pointed and bright than those handled. Nay, the very handling dims and enfeebles whatever is touched; and why? because human thought, and much more, human language, utterly fail in every attempt to reach what God is. Yet, as sufficient for our own service, and to exalt before our narrowed minds, his supreme character, let us study with all humility and homage, the loftiest ideas we can entertain, and the most becoming language regarding the attributes of God. Let us, when all else fails to give strength and

light to our conceptions of his unspotted truth, turn to the child for a lesson, and still closer to what passes within our own breasts.

THE WISDOM OF GOD.

WHATEVER can be said to illustrate and prove the intelligence of the First Great Cause, from the marks of contrivance and skill manifest in all His works with which we are conversant, goes to establish the doctrine of His wisdom. But as an attribute that holds a prominent place in an excellent moral character, wisdom deserves a distinct consideration ; where it is to be viewed not merely as the conduct in which the best means for the best ends are chosen, but the character which chooses those means and ends. Now it is quite clear that such must be supremely manifest in the character and conduct of God, if it be true, that He is omniscient and perfectly benevolent ; attributes that have already been separately discussed, and, as I think, fairly proved. But there are innumerable proofs, which may be directly advanced, of God's wisdom, and which with more advantage may be taken up, in its immediate illustration ; though I shall not do more than simply name a few examples ; for the very announcement of such is sufficient to set the dullest apprehension upon a course of thought, much more excursive and convincing than any I have room to furnish.

Take as instances, the heavenly bodies, and of them the sun, with its revolutions, influence, and uses :—the sequence and course of the seasons, with their individual and united purposes ; and the vicissitude of day and night ; all wonderful provisions, and illustrious for their exact fitness as regards the ends appointed and

necessary to be accomplished by them. The means provided for the supply of the wants of created objects; particularly those endowed with vegetable and animal life, is a no less striking evidence of Divine Wisdom. And here, to take notice of the beautiful and admirable adaptation of external nature to the organ of sight, think of the robe of green that mantles the earth, which of all others is the colour the eye most loves to rest on. The construction of man's body, and still more that of his mind, for the ends appointed to be accomplished by them, are the most affecting displays of God's wisdom which we have access on earth to judge of. Man is, indeed, fearfully and wonderfully made, and he stultifies himself who remains unmoved by the arguments hence drawn.

It has been well observed, that scarcely any proofs in support of the perfect wisdom of the Creator are more sweeping and satisfactory than the fact, that he accomplishes many ends by few and simple means. Take as specimens the principle of gravitation, the uses of water, fire, light, and air. These and a few more elements constitute all the bodies, and occasion all the operations that are constantly occurring in endless variety throughout the universe, furnishing the most incontestable and striking evidence of the wisdom of Him who orders them all.

The gift of the powers of speech to mankind is such an instance of wisdom as must touch tenderly the contemplative mind; and still farther, the communication of such properties and qualities as makes man a moral agent, capable in the fullest sense of thoughts, affections, and actions, which are strictly his own, of which he is the real author.

Such are some of the illustrious displays of divine wisdom in the estimation of beings constituted as we

are ; although we cannot doubt that every thing furnishes complete proofs of this and all the other attributes of Deity, had we the discernment to discover and weigh the evidences. However, what has been said, in this little volume, of God, shows that he is worthy of supreme and universal obedience, homage, and adoration ; that the noblest, highest, and best employment of his rational offspring, must be to serve and love him ; and that every man, of a well-regulated mind, will constantly think of Him, and speak of Him, as the fountain of life, light, and happiness ; as the great Creator and Judge of all.

THE END.

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